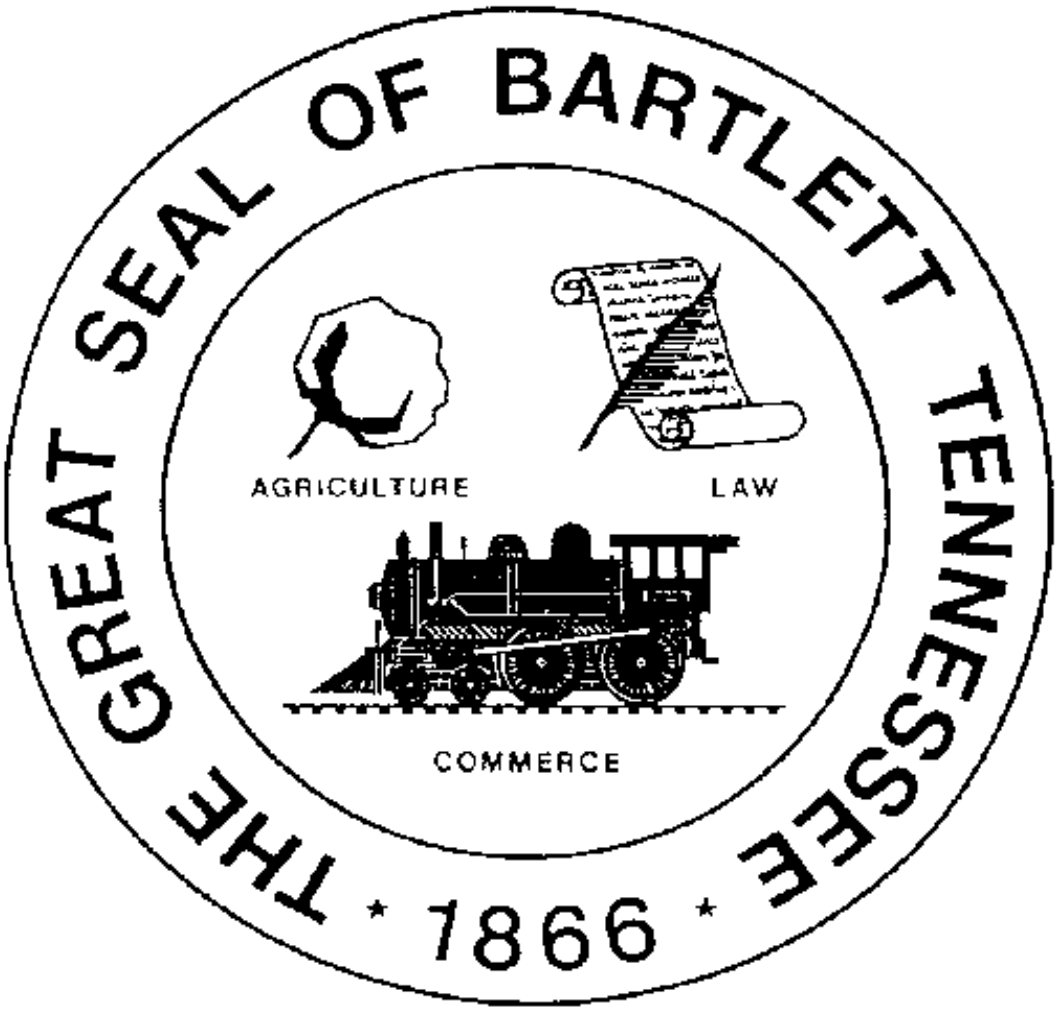


Notice of Intent

January 27, 2017

City of Bartlett

A. KEITH McDONALD, Mayor
ENGINEERING & UTILITIES
W. R. McCLANAHAN - Director and City Engineer
WADE TOWLES - Assistant City Engineer

January 31, 2017

Ms. Joellyn Brazile
Tennessee Department of Environment and Conservation
Division of Water Pollution Control
8383 Wolf Lake Drive
Bartlett, TN 38133-4199

Re: City of Bartlett MS4 Notice of Intent

Dear Ms. Brazile,

Attached are two copies (one original signed) of the City of Bartlett's Notice of Intent for coverage under the State of Tennessee NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems issued September 30, 2016, with an effective date of October 1, 2016.

Information provided in Part II, Item D, Identifying Streams with Unavailable Parameters or Exceptional Tennessee Waters was obtained from the draft version of the 2016 303(d) List and is consistent with the information provided on the TDEC GIS mapping tool referenced in the instructions.

I've attempted to provide answers/explanations to common questions TDEC had concerning our 2010 NOI so as not to delay processing the 2016 NOI. Those that could not be provided in the body of the NOI due to restricted editing can be found at tab 5. If you have any questions or comments please feel free to contact me at (901)385-6499 or dfent@cityofbartlett.org.

Sincerely,

Donald W. Fent
Storm Water Coordinator

6382 STAGE ROAD • BARTLETT, TENNESSEE 38134-3739 • PHONE: 901-385-6499 • FAX: 901-385-7021
E-mail: rmcclanahan@cityofbartlett.org

City of Bartlett

Notice of Intent for Coverage under the State of Tennessee NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems issued September 30, 2016

Table of Contents

Tab 1

Notice of Intent

Tennessee Department of Environment and Conservation
Division of Water Resources
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243

Phase II Stormwater Permit Notice of Intent (NOI)
Phase II Municipal Separate Storm Sewer Systems (MS4)

PURPOSE

The purpose of this Notice of Intent (NOI) is for a Tennessee city, county, utility district, university or military base to submit the information necessary to obtain coverage under an NPDES permit to discharge stormwater runoff from a Phase II municipal separate storm sewer system.

INSTRUCTIONS

You must provide the following information to the Division of Water Resources as application material. You may either submit a hard copy of the signed NOI as described in sub-part 2.2.1 of the MS4 Permit, signed in accordance with the signatory requirements of sub-part 6.7 of the permit, and a copy of the NOI, to the address shown in sub-part 1.2 of the permit for the EFO responsible for the county where the facility is located; or you may submit by e-mail, the completed NOI and attachments (such as map and city ordinances) to water.permits@tn.gov.

After completing the questions in each section, list the Best Management Practices (BMPs) that you will implement in each program. Attached at the end of this NOI is an addendum to list BMP Measurable Goals and Implementation Milestones. You must complete the addendum, providing more details on the goals and milestones for each BMP outlined in this NOI.

After completing the BMP's in each section provide the administrative information to complete those BMP's as explained here:

Primary Contact and Position/Title	The person in your organization serving as the primary contact.
Other Department and Roles	Other departments within your organization involved in the project and how their role is identified.
Other Government Entity and Roles	Identification of other government entities responsible for implementing one or more of the BMP's. Include a copy of the contract or proposed agreement with execution schedule.
Other Institutions and Roles	Identification of partnerships with another MS4 operator or institution (e.g., Chamber of Commerce, environmental interest organizations, civic groups) to achieve the BMP's.
Target Groups (if applicable)	Specific kinds of groups that will be targeted, such as service industries (i.e., carpet cleaning), civic groups, schools, and church groups, etc.

PART I - ADMINISTRATIVE INFORMATION

Name of Phase II MS4 city, county, stormwater utility district or public institution: City of Bartlett

Include a latitude and longitude of a representative location within your boundaries for mapping purposes.
Latitude (dd.dddd): 35.2052 Longitude (dd.dddd): -89.8495

A. Keith McDonald — Responsible Elected Official or Officer
Mayor — Title

6400 Stage Road — Street Address
Bartlett — City
TN — State
38134-3739 — Zip Code

PROGRAM CONTACT	TECHNICAL CONTACT
Rick McClanahan	Don Fent
Name	Name
rmcclanahan@cityofbartlett.org	dfent@cityofbartlett.org
Email Address	Email Address
901-385-6499	901-385-6499
Phone Number	Phone Number

☒ Attach an organizational chart that shows the different departments involved in stormwater management.

PART II - DESCRIPTION OF STORM SEWER SYSTEM

ITEM A - AREA SERVED (IN SQUARE MILES)

For a city, town, university, or utility district university or military base:
Provide jurisdiction area within current boundaries 32
Provide additional area of urban growth boundary 11

For a county:
Provide total area: _____
Provide area that is unincorporated _____
Provide unincorporated, urbanized area (UA) _____
Indicate by checking the appropriate box if the permit will be used to regulate non-UA portions of the county:
☐ No
☐ Yes, the entire county (unincorporated)
☐ Yes, the non-UA portions, as follows: _____

ITEM B - STORM DRAINAGE INFRASTRUCTURE

Give figures for the following features of stormwater drainage infrastructure owned or operated by the local government. For a county government, indicate whether the figures represent the entire county or only the urbanized area. Figures for length and number of culverts and catch basins may be rough estimates.

For counties: Entire county ☐ Urbanized area only ☐

Storm Sewers	208 miles (miles or feet)	Open Ditches	122 miles (miles or feet)
Culverts	141	Catch Basins	7334
Water Quality Treatment Ponds	15		

ITEM C - MAPS

Include a map or maps depicting the following information. A single map may be submitted, as long as the information is legible. If you are not able to provide all the information mark the applicable check box and attach an explanation as to why the information has not been submitted:

Areas zoned for commercial or industrial activity	☐	Military Installations	☒
Municipally owned/operated industrial activities	☒	State vocational, technical, college or universities	☒
Municipal or County Wastewater Treatment Plants	☐	Federal vocational, technical, college or universities	☒
Municipal Vehicle Fleet Maintenance Centers	☐	City Roads	☐
Municipal Power Plants	☒	County Roads	☒
Municipal Airports	☒	Streams	☐
Municipal Landfills	☒	Topography or General Drainage Patterns	☐

ITEM D - IDENTIFYING STREAMS WITH UNAVAILABLE PARAMETERS or EXCEPTIONAL TENNESSEE WATERS

Using the GIS mapping tool (http://www.tn.gov/environment/article/wr-water-resources-data-viewer) along with the most current 303(d) list (http://www.tn.gov/environment/article/wr-wq-water-quality-reports-publications) published on the division's web site, determine whether stormwater from any part of the MS4 discharges into streams with unavailable parameters (previously referred to as impaired streams) for nutrients, pathogens, siltation, or other parameters related to stormwater runoff from urbanized areas or to streams designated as Exceptional Tennessee Waters and list below. For any waterbody with unavailable parameters or Exceptional Tennessee Waters, indicate the waterbody ID#, name of the waterbody and nature of pollution (cause) or Exceptional status.

WATERBODY ID# AND NAME OF WATERBODY	NATURE OF POLLUTANT (CAUSE) OR EXCEPTIONAL
TN08010209 002-0400 Oliver Creek	Discharges from MS4 area and land development
TN08010209 002-0500 Buckhead Creek	Discharges from MS4 area and land development.
TN08010209 002-0700 Howard Creek	Discharges from MS4 area
TN08010209 002-1000 Loosahatchie River	Discharges from MS4 area, atmospheric deposition, contaminated sediment, land development and channelization
TN08010209 002-2000 Loosahatchie River	Municipal Point Source, discharges from MS4 area, land development, and channelization
TN08010210 001-0100 Harrington Creek	Discharges from MS4 area
TN08010210 023-0100 Unnamed Trib to Fletcher Creek	Discharges from MS4 area and channalization

If you have additional streams to list, include in a separate attachment.

ITEM E - STATE OR EPA ISSUED TDMLs

Identify established and approved TMDLs with waste load allocations for MS4 discharges in your jurisdiction and check the appropriate box. A list of EPA-Approved TMDLs as well as EPA-Established TMDLs for Tennessee waters can be found on the division's web site: http://www.tn.gov/environment/article/wr-ws-tennessees-total-maximum-daily-load-tmdl-program.

Yes ☒ No ☐ If yes, list the waterbody ID#, name of unavailable waterbody and parameter(s) of concern:

WATERBODY ID# AND NAME OF UNAVAILABLE WATERBODY	PARAMETERS OF CONCERN
TN08010209 002-0400 Oliver Creek	E. Coli
TN08010209 002-0500 Buckhead Creek	E. Coli
TN08010209 002-0700 Howard Creek	E. Coli
TN08010209 002-1000 Loosahatchie River	E. Coli
TN08010209 002-2000 Loosahatchie River	E. Coli
TN08010210 001-0100 Harrington Creek	E. Coli
TN08010210 023-0100 Unnamed Trib to Fletcher Creek	E. Coli
	Note: There are TMDLs for PCBs and metals in addition to the E. Coli TMDLs for some stream segments. Those TMDLs do not provide a WLA for this MS4 and are therefore not listed above.

If you have additional streams to list, include in a separate attachment.

PART III - EXISTING LEGAL AUTHORITY TO CONTROL STORMWATER DISCHARGES TO MS4

You must review existing adopted and signed ordinances or regulations that are associated with stormwater discharges to your MS4. Attach a copy of ordinances and/or policies that give your MS4 the authority to control stormwater discharges into the MS4 storm sewer system. Ordinances and/or policies that deal with stormwater issues might be found, for example, in conjunction with litter control, prohibition of dumping, clean up of spills, grading/building permits, sewer connection ordinances, erosion prevention and sediment control practices, subdivision regulations or other land use/development ordinances.

PART IV - SIGNATURE OF RESPONSIBLE CORPORATE OFFICER

This Notice of Intent (NOI) must be signed as follows: For a municipality, state, federal, other public agency, and/or co-permittees by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes one of the following:

I. The chief executive officer of the agency.
II. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

Signature	Title/Municipality	Date
A. Keith McDonald	Mayor	1/27/17

PART V - YOUR PROPOSED STORMWATER QUALITY MANAGEMENT PROGRAM

This NOI requires you to provide a brief description of your current and proposed activities as well as your BMPs for a stormwater management program. The following sections correspond to the six minimum control measures for a Phase II stormwater management program. If another MS4 will be responsible for implementing any or all portions of any or all following six minimum measures, then attach either the interlocutory agreement or the proposed agreement and schedule for adoption. You must still complete this NOI by answering the relevant questions for the six following measures.
For purposes of this NOI, the Public Education and Outreach and Public Participation and Involvement minimum measures have been combined.

SECTION 1 - PUBLIC EDUCATION AND OUTREACH AND PUBLIC INVOLVEMENT/PARTICIPATION

A. Current Activities:

The following is a set of questions on your current Public Education and Outreach and Public Involvement/Participation. These questions are intended to highlight minimum program requirements under the MS4 permit. Each question with a "No" answer must be addressed with a solution in the MS4's proposed program.

1. Does the municipality currently distribute educational materials on the topics of stormwater quality, instream water quality, pollution impacts, pollution prevention, etc.? If yes, briefly describe the materials, including media used (e.g., written brochures, public service announcements, etc.); the topic(s) covered, intended target audience(s), and the distribution method: A PowerPoint presentation "Preventing Storm Water Pollution" is presented upon request. We encourage home owner's associations to invite us to present the presentation at their individual meetings. Topics include what storm water run-off is, pollutants that can typically be found in the run-off, sources of those pollutants and what we can do to reduce or eliminate those pollutants. Target audience is home owners. Educational pamplet "Tennessee Homeowner's Guide to Cleaner Water" is prominently displayed in the city hall building adjacent to the reception desk for the public to purview and take, is also posted on the City of Bartlett official website and is included in community information packages given to all new Bartlett residents. It is also included in any correspondence sent to home owners in regards to storm water pollution prtevention. Topics include things you can do around your house to reduce or eliminate storm water run-off pollution. Target audience is homeowners. Educational pamplet "Pet Waste and Water Quality" is distributed to each animal clinic and animal hospital in the MS4, including the City of Bartlett Animal Shelter, for distribution to their customers and is also included in a community information package given to all new Bartlett residents. Topics include what storm water run-off is, pathogens found in pet waste and what the pet owner can do to reduce pathogens in storm water run-off. Target audience is pet owners. Educational bookmark "Clean Water - Everybody's Business" is distributed to the local public library for distribution to library users. Topics include ten things you can do to prevent storm water run-off pollution. Target audience is homeowners. "Storm Water Pollution Found in Your Area" door tags are used in neighborhoods with storm water pollution incidences that can't be traced to individuals. Topics include a listing of the particular watershed, typical pollutants that can be found in the neighborhood with the particular pollutant that was found in the neighborhood highlighted, and how to reduce or eliminate the pollutant. Target audience is home owners. Public service announcements including locally produced FYI segments are broadcast on the City of Bartlett local cable channel and on the official City of Bartlett website. Target audiences are those watching the cable channel or visiting the website. Descriptions of the six minimum standards of storm water management are posted on the City of Bartlett official website. Target audience is website users. A series of seven pamplets is used to to provide information concerning landscaping, gardening and pest control; food service industry; automotive maintenace and repair; heavy equipment and earth moving activities; detention basin maintenance; home repair and remodling and home and commercial builders. The target audience are home owners and owners of businesses associated with the particular pamphlet. This MS4 participates in the TAB program, with storm water education and outreach conducted by radio broadcasts. The target audience is radio listeners.

Yes ☒ No ☐

2. Does the municipality currently conduct or participate in public outreach activities focusing on the topics of stormwater quality, stream water quality, pollution impacts, pollution prevention, etc.? If yes, briefly describe the outreach activities, topic(s) covered, intended target audience(s), and the frequency of activities: A PowerPoint presentation "Preventing Storm Water Pollution" is presented upon request. We encourage home owner's associations to invite us to present the presentation at their individual meetings. Topics include what storm water run-

off is, pollutants that can typically be found in the run-off, sources of those pollutants and what we can do to reduce or eliminate those pollutants. Target audience is home owners. The presentation is also included as the general education component of the municipal employee training program. Educational pamplet "Tennessee Homeowner's Guide to Cleaner Water" is prominently displayed in the city hall building adjacent to the reception desk for the public to purview and take, is also posted on the City of Bartlett official website and is included in community information packages given to all new Bartlett residents. It is also included in any correspondence sent to home owners in regards to storm water pollution prevention. Topics include things you can do around your house to reduce or eliminate storm water run-off pollution. Target audience is homwowners. Educational pamplet "Pet Waste and Water Quality" is distributed to each animal clinic and animal hospital in the MS4, including the City of Bartlett Animal Shelter, for distribution to their customers and is also included in a community information package given to all new Bartlett residents. Topics include what storm water run-off is, pathogens found in pet waste and what the pet owner can do to reduce pathogens in storm water run-off. Target audience is pet owners. Educational bookmark "Clean Water - Everybody's Business" is distributed to the local public library for distribution to library users. Topics include ten things you can do to prevent storm water run-off pollution. Target audience is homeowners. "Storm Water Pollution Found in Your Area" door tags are used in neighborhoods with storm water pollution incidences that can't be traced to individuals. Topics include a listing of the particular watershed, typical pollutants that can be found in the neighborhood with the particular pollutant that was found in the neighborhood highlighted, and how to reduce or eliminate the pollutant. Target audience is home owners. Public service announcements including locally produced FYI segments are broadcast on the City of Bartlett local cable channel and on the official City of Bartlett website. Target audiences are those watching the cable channel or visiting the website. Descriptions of the six minimum standards of storm water management are posted on the City of Bartlett official website. Target audience is website users. A series of seven pamplets is used to to provide information concerning landscaping, gardening and pest control; food service industry; automotive maintenace and repair; heavy equipment and earth moving activities; detention basin maintenance; home repair and remodling and home and commercial builders. The target audience are home owners and owners of businesses associated with the particular pamphlet. This MS4 participates in the TAB program, with storm water education and outreach conducted by radio broadcasts. The target audience is radio listeners. A storm water education booth is used at the annual Bartlett Fall Festival to engage citizens in storm water pollution prevention. An entertaining five question quiz concerning storm water pollution is given to participants with correct answers being awarded a prize to reinforce what the participant has learned.

Yes ☒ No ☐

3. Does the current municipal stormwater management program comply with Local, State and Federal public notice requirements? If yes, describe how the public is notified: Notices are published in the local paper, "The Bartlett Express", prominently posted on a bullentin board at the entrance to the city hall building, posted on the City's official website, and broadcast on the local cable channel. Depending upon the subject, group emails are sent to local developers, engineers and builders.

Yes ☒ No ☐

B. Proposed Activities:

1. List the BMPs that you will implement in the areas of Public Education and Outreach and Public Participation and Involvement. These should be based on a set of priorities that you have identified in the areas of Public Education and Outreach and Public Participation and Involvement. Provide a short descriptive name to the BMP in the left column. In the right column, more fully describe the BMP.

For Public Participation and Involvement BMPs, you may not desire to dictate the ways in which the public participates or is involved in the stormwater quality management program; in this case, your proposed program should provide a forum and/or a structure which guides and encourages the public in participation. On the other hand, there may be specific ways you do want the public to be involved, based on your program needs. For instance, you may want stream watch groups to be organized. In both cases, your proposed program should describe how you will accomplish this, along with a time schedule.

PROPOSED BEST MANAGEMENT PRACTICES FOR PUBLIC EDUCATION AND PUBLIC PARTICIPATION		
BMP	Name	DESCRIPTION
1A.	Public Information and Education Plan	Details specific goals and specific public information events/activities that will occur over the remander of the permit cycle.
1B.	Preventing Storm	A PowerPoint presentation presented upon request to members of the local home

	Water Pollution Presentation	owners associations.
1C.	Educational Pamphlets	As described in section 1-A-1 and 1-A-2 above
1D.	Local Cable Broadcasts	FYI segments broadcasted on the local cable channel with varying subjects that may include one or more of the following: sediments, nutrients, trash and debris, pathogens, pesticides, petroleum products, illicit discharges, illegal dumping.

If you have additional BMPs to list, include in a separate attachment.

2. What specific groups will be targeted (e.g., service industries such as carpet cleaning, lawn care, civic groups, schools, church groups) if applicable: Service industries as listed in section 4.2.1 of the small MS4 permit issued September 30, 2016, home owners associations, home owners, the general population.

C. Measurable Goals and Implementation Milestones:

Attached at the end of this NOI is an addendum to list BMP Measurable Goals and Implementation Milestones. You must complete the addendum, providing more details on the goals and milestones for each BMP outlined in this NOI.

D. Administrative Information:

ADMINISTRATIVE INFORMATION FOR PUBLIC EDUCATION AND PUBLIC PARTICIPATION	
PRIMARY CONTACT	POSITION OR TITLE
Donald W. Fent	Storm Water Coordinator

Identify other Department(s) that will be involved and their role.

OTHER DEPARTMENT(S)	ROLE
Community Relations	FYI production and broadcasting

Identify if you will partner with another MS4 Operator, or with another institution (e.g. Chamber of Commerce, Environmental interest organizations, civic groups) in order to carry out the chosen BMPs.

ENTITY	BMP
Local Homeowners Association	Facilitate presentation of "Preventing Storm Water Pollution" presentation
Tennesse Stormwater Association	Public service announcements via the TAB program

Will another governmental entity be responsible for implementing one or more chosen BMPs? If so, identify the entity and which BMP(s) it will implement. Include a copy of the interlocutory agreement, or contract, or proposed agreement with execution schedule.

ENTITY	BMP

SECTION 2 - ILLICIT DISCHARGE DETECTION AND ELIMINATION

A. Current Activities

The following is a set of questions on your current Illicit Discharge Detection and Elimination Program. These questions are intended to highlight minimum program requirements under the MS4 permit. For MS4s who have not been previously covered under an MS4 permit, each element not currently performed must be implemented by the

dates identified in Sub-part 4.1.1 of the permit. Thus, each question with a "No" answer must be addressed with a solution in the MS4's proposed program.

1. Does the municipality currently have a storm sewer system map that shows the location of system outfalls where the municipal storm sewer system discharges into receiving waters or conveyances owned or operated by another MS4? The map must also show: the names and location of waters that receive discharges from those outfalls; inputs into the storm sewer collection system, such as the inlets, catch basins, drop structures or other defined contributing points to the sewershed of that outfall; and general direction of stormwater flow.

Yes ☒ No ☐

2. Does the municipality currently have an ordinance or regulatory mechanism that prohibits unauthorized non-stormwater discharges into the storm sewer system? If yes, attach a copy and give page and section number(s). If No, proceed to the next section (inspections and enforcement).

Yes ☒ No ☐ Page Number 8 Paragraph Number 14-205

3. Does the ordinance or regulatory mechanism clearly define non-stormwater discharges, either through a written description of a non-stormwater discharge or through a listing of authorized or unauthorized non-stormwater discharges?

Yes ☒ No ☐

4. Does the ordinance or regulatory mechanism allow right-of-entry on private property for inspection of suspected discharges?

Yes ☒ No ☐

5. Does the ordinance or regulatory mechanism prohibit dumping?

Yes ☒ No ☐

6. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to eliminate unauthorized non-stormwater discharges in the event of violations? If yes, note page number and paragraph number.

Yes ☒ No ☐ Page Number 15 Paragraph Number 14-207(3) & 14-207(8)

7. Does the ordinance or regulatory mechanism define penalties for violations? If yes, note maximum penalty, page number and paragraph number.

Yes ☒ No ☐ Maximum Penalty $5,000.00 Page Number 21 Paragraph Number 14-211(2)

8. Does the municipality presently have personnel and procedures in place to detect, identify and eliminate non-stormwater discharges? If yes, describe and indicate percentage of system inspected: All city employees have been trained on storm water pollution prevention and can report instances of such during their daily activities. The City's official website has a citizens request form that citizens can utilized for reporting instances of illicit discharges. Three inspectors perform routine dry weather field monitoring when their other duties allow. 63 percent of the total drainage system has had a visit at least once.

Yes ☒ No ☐

9. Does the municipality presently have procedures and personnel in place for enforcement of violations of the illicit discharge ordinance? If yes, describe: Section 14-211 of the City's storm water ordinance details enforcement actions for illicit discharges. Enforcement personnel are assigned to the Department of Code Enforcement and the Department of Engineering and Utilities.

Yes ☒ No ☐

10. Describe how enforcement actions are documented: For activities other than NPDES permitted construction, enforcement actions are tracked and documented utilizing a web-based system called Magnet. Magnet is designed to accept complaints from the public via the internet or allows for city employees to input the data if the complaint is received via phone or email. All actions from initial complaint to close-out of the incident is tracked and documented, to include any enforcement actions taken, from verbal warnings to notice of violations to court action.

11. Has the municipality defined "hot spots" for non-stormwater discharge screening and inspection purposes? If yes, describe and provide a map of illicit discharge screening hot spots: Hot spots have been identified through dry weather field monitoring as those areas with instances of confirmed non-stormwater discharges (mostly food industry businesses). Other areas identified as hot spots are areas that have a potential for non-stormwater discharges and includes automotive repair facilities and some industrial businesses

Yes ☒ No ☐

12. Does the municipality presently have procedures in place to receive and consider information and complaints about non-stormwater discharges that are submitted by the public? If yes, provide brief description: responsible departments, personnel, steps followed: Web-based Magnet system. System automatically generates an email to the Storm Water Coordinator for action. Emailed or phone complaints are entered into the system for action and tracking. The Storm Water Coordinator will invetigate the complaint or assign the complaint to an inspector to investigate. The Storm Water Coordinator or the inspector will take the required actions necessary to have the complaint resolved. Once the deficiency is corrected, the complaint is close-out in the system with a description of what actions were taken. Complaints filed via the web generate an automatic notification to the person making the complaint (if they provided their email addresses). If contact information was left during phone-in complaints, the complantaint is notified of the results of the investigation.

Yes ☒ No ☐

B. Proposed Activities:

1. List the BMPs that you will implement in the area of Illicit Discharge Detection and Elimination. These should be based on a set of priorities that you have identified in the area of Illicit Discharge Detection and Elimination. Provide a short descriptive name to the BMP in the left column and more description in the right column.

PROPOSED BEST MANAGEMENT PRACTICES FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION		
BMP	Name	DESCRIPTION
2A.	Storm Water Ordinance	Storm Water Management and Pollution Control Program ordinance
2B.	Dry weather field monitoring	Outfall reconnaaissance inventory of outfalls
2C.	Enforcement Response Plan	Provides potential responses to violators through progressive enforcement as needed to achieve compliance
2D.	Public Information and Education Plan	Details specific goals and specific public information events/activities that will occur over the remainder of the permit cycle

If you have additional BMPs to list, include in a separate attachment.

2. What specific groups will be targeted, if applicable? All citizens and potential pollution generating businesses.

C. Measurable Goals and Implementation Milestones

Attached at the end of this NOI is an addendum to list BMP Measurable Goals and Implementation Milestones. You must complete the addendum, providing more details on the goals and milestones for each BMP outlined in this NOI.

D. Administrative Information

ADMINISTRATIVE INFORMATION FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION	
PRIMARY CONTACT	POSITION OR TITLE
Donald W. Fent	Storm Water Coordinator

Identify other Department(s) that will be involved and their role.

OTHER DEPARTMENT(S)	ROLE
Code Enforcement	Ordinance enforcement

Board of Mayor and Alderman	Approval authority for ordinances

Identify if you will partner with another MS4 Operator, or with another institution (e.g. Chamber of Commerce, Environmental interest organizations, civic groups) in order to carry out the chosen BMPs.

ENTITY	BMP

Will another governmental entity be responsible for implementing one or more chosen BMPs? If so, identify the entity and which BMP(s) it will implement. Include a copy of the interlocutory agreement, or contract, or proposed agreement with execution schedule.

ENTITY	BMP

SECTION 3 - CONSTRUCTION SITE STORMWATER RUNOFF PROGRAM

A. Current Activities

The following is a set of questions on your current Construction Site Stormwater Runoff Program. These questions are intended to highlight minimum program requirements under the MS4 permit. For MS4s who have not been previously covered under an MS4 permit, each element not currently performed must be implemented by the dates identified in Sub-part 4.1.1 of the permit. Thus, each question with a "No" answer must be addressed with a solution in the MS4's proposed program.

1. Do the current ordinances/regulations for the municipal stormwater management program comply with Local, State and Federal public notice requirements? If yes, describe how the public is notified: Notices are prominently posted on a bullentin board at the entrance to the city hall building, posted on the "Public Notice" section of the City of Bartlett official web site and advertised in the local paper, The Bartlett Express. Additionally, depending upon the subject matter, group email notices are sent to local engineers, developers, builders and contractors.

Yes ☒ No ☐

2. Do you currently have an erosion prevention and sediment control - or similar - ordinance or regulatory mechanism? If yes, include a copy and reference the paragraph number(s). If No, proceed to the next set of questions below about construction site plans review.

Yes ☒ No ☐ Page Number 13 Paragraph Number 14-206(11)

3. Does the ordinance or regulatory mechanism require that site operators implement erosion prevention, sediment control, and other construction waste controls for land disturbance activities?

Yes ☒ No ☐

4. Does the ordinance/regulatory mechanism require that controls be implemented for any land disturbances greater than or equal to one acre, or less than one acre if part of a large common plan of development or sale that would disturb one acre or more? If yes, note the page number and paragraph number where this is defined.

Yes ☒ No ☐ Page Number 11 Paragraph Number 14-206(3) Please note that page 3, section 14-203(12) defines a construction activity.

5. Does the ordinance or regulatory mechanism contain or reference technical standards for erosion and sediment control? If yes, note the page number and paragraph number where this is defined.

Yes ☒ No ☐ Page Number 10 Paragraph Number 14-206(1). Note that the Shelby County Watershed Management Practices Manual has been combined with the City of Memphis manual and will be deleted from the ordinance upon the next change. The Bartlett manual has not been developed as of yet.

6. Do those technical standards meet or exceed the current effective Tennessee Construction General Permit (TNR100000) requirements for design storm and special conditions for waterbodies with unavailable parameters or Exceptional Tennessee Waters?

Yes ☒ No ☐

7. Do those technical standards require that construction activities maintain temporary water quality riparian buffers during construction?

Yes ☒ No ☐

8. Does the municipality presently have in place a technical review process (i.e. engineering department, planning department, zoning board) that evaluates new development and redevelopment construction for construction site runoff?

Yes ☒ No ☐

9. Does the technical review process require an erosion prevention and sediment control plan with appropriate BMPs?

Yes ☒ No ☐

10. Does the review process include a requirement for pre-construction meeting between the municipality and site developer, for priority construction sites?

Yes ☒ No ☐

11. If there is a review process, provide a brief narrative or a flow chart of the process, describing the process steps, responsible personnel, and criteria used for evaluation of information or plans that are submitted: The owner or developer submits a master plan to the Planning Commission for review and approval. The Department of Engineering Land Development Engineer and the Planning Department review the plan for compliance with the City of Bartlett Subdivision Regulation, storm water ordinance and the construction general permit (if required) then recommends disapproval, approval or approval subject to modifications. A public meeting of the Planning Commision is held addressing the master plan. After the master plan has been approved, the owner or developer submits a complete engineered set of construction plans. These go through the same review and approval process. Construction plans are not approved until all recommended changes are made.

12. Does the municipality presently have procedures in place for receipt and consideration of information and complaints submitted by the public?

Yes ☒ No ☐

If yes, provide a brief narrative of the receipt process and procedures, describing process steps, responsible departments, personnel (by title). Web-based Magnet system. System automatically generates an email to the Storm Water Coordinator for action. Emailed or phoned complaints are entered into the system for action and tracking. The Storm Water Coordinator will investigate the complaint or assign the complaint to an inspector to investigate. The Storm Water Coordinator or the inspector will take the required actions necessary to have the complaint resolved. Once the deficiency is corrected, the complaint is close-out in the system with a description of what actions were taken. Complaints filed via the web generate an automatic notification to the person making the complaint (if they

provided their email addresses). If contact information was left during phone-in complaints, the complantaint is notified of the results of the investigation.

13. Does the municipality presently have personnel and procedures in place for construction site runoff inspection?

Yes ☒ No ☐

14. Does the program provide for pre-construction meeting and monthly inspection of priority construction activities?

Yes ☒ No ☐

15. Does the municipality presently have procedures and personnel in place for enforcement to the maximum extend for violations of construction site requirements?

Yes ☒ No ☐

16. Does the municipality use a Stop Work or similar order to enforce compliance with construction site policies and requirements?

Yes ☒ No ☐

17. How are enforcement actions documented? Via letter and tracked using the computer file system. If the complaint was received through Magnet, that information is placed there as well.

18. Have MS4 inspectors who conduct inspections of construction sites received certification under the Tennessee Fundamentals of Erosion Prevention and Sediment Control, Level 1, and construction site plan reviewers a certificate of completion from the Tennessee Erosion Prevention and Sediment Control Design Course, Level 2?

Yes ☒ No ☐

B. Proposed Activities:

1. List the BMPs that you will implement in the area of Construction Site Runoff Program. These should be based on a set of priorities that you have identified in the area of Construction Site Runoff Program. Provide a short descriptive name to the BMP in the left column and more description in the right column.

PROPOSED BEST MANAGEMENT PRACTICES FOR CONSTRUCTION SITE RUNOFF PROGRAM		
BMP	Name	DESCRIPTION
3A.	Ordinance	Storm Water Management Pollution Control Program ordinance
3B.	Plans Review	Technical review process for EPSC BMPs
3C.	Magnet System	Web-based system for receiving and tracking complaints
3D.	Inspections	Perform recurring inspections of construction sites for compliance with local ordinances and permit requirements

If you have additional BMPs to list, include in a separate attachment.

2. Describe specific groups that will be targeted, if applicable: Developers/builders/contractors

C. Measurable Goals and Implementation Milestones

Attached at the end of this NOI is an addendum to list BMP Measurable Goals and Implementation Milestones. You must complete the addendum, providing more details on the goals and milestones for each BMP outlined in this NOI.

D. Administrative Information

ADMINISTRATIVE INFORMATION FOR CONSTRUCTION SITE RUNOFF PROGRAM	
PRIMARY CONTACT	POSITION OR TITLE
Donald W. Fent	Storm Water Coordinator

Identify other Department(s) that will be involved and their role.

OTHER DEPARTMENT(S)	ROLE
Code Enforcement	Ordinance enforcement and site inspections
Planning Department	Plan Review
Board of Mayor and Alderman	Approval authority for ordinance and construction

Identify if you will partner with another MS4 Operator, or with another institution (e.g. Chamber of Commerce, Environmental interest organizations, civic groups) in order to carry out the chosen BMPs.

ENTITY	BMP

Will another governmental entity be responsible for implementing one or more chosen BMPs? If so, identify the entity and which BMP(s) it will implement. Include a copy of the interlocutory agreement, or contract, or proposed agreement with execution schedule.

ENTITY	BMP

SECTION 4 - PERMANENT STORMWATER MANAGEMENT AT NEW DEVELOPMENT AND REDEVELOPMENT

A. Current Activities:

The following is a set of questions on your current Permanent Stormwater Management in New Development and Redevelopment Program. These questions are intended to highlight minimum program requirements under the MS4 permit. For MS4s who have not been previously covered under an MS4 permit, each element not currently performed must be implemented by the dates identified in Sub-part 4.1.1 of the permit. Thus, each question with a "No" answer must be addressed with a solution in the MS4's proposed program.

1. Does the municipality currently have in place mechanisms or strategies to address permanent stormwater runoff management from new development or redevelopment projects that result in land disturbance of one acre or more? For example, land use planning requirements, zoning directives, site-based pollutant removal controls; stormwater detention or storage; practices that infiltrate stormwater; vegetative practices.

Yes ☒ No ☐

If yes, provide a brief narrative of - and/or references to - the structural and non-structural strategies, describing strategies implemented, Best Management Practices allowed, technical guidance, responsible departments, and personnel (by title): Page 11, section 14-206(6) of the storm water ordinance and page B-21, section 2A of the subdivision regulation requires the amount and rates of water leaving a subdivision or other developed areas not exceed the pre-development peak discharge at the site. Section 2B of the subdivision regulation requires both elements of retention and detention be used in the design to achieve volume and rate runoff. Section 14-206(7) of the storm water ordinance requires developments to incorporate detention with storage volume sized for a 25 year storm. Section 14-2016(10)(h) requires the set aside of land along all waters of the state (greenbelt) as land is developed. Currently, the minimum buffer width is 60 feet on each side of the stream (Attachment A of the storm water ordinace). Pollutant reduction requirements of the permit have been waived for this MS4 pending a Phase 1 permit containing those requirements is issued to the City of Memphis.

2. Do you currently have an ordinance or regulatory mechanism that addresses permanent stormwater runoff management from new development and redevelopment projects? If yes, reference the page number and paragraph number. If no, proceed to the next section on permanent stormwater management plans review.

Yes ☒ No ☐ Page Number 11 Paragraph Number 14-206(8)

3. Does the ordinance or regulatory mechanism require controls to treat pollutants in stormwater runoff? If yes, note page number and paragraph number.

Yes ☐ No ☒ Page Number _____ Paragraph Number Pollutant reduction requirements of the permit have been waived for this MS4 pending a Phase 1 permit containing those requirements is issued to the City of Memphis.

4. Does the ordinance or regulatory mechanism require (explicitly or implicitly) that controls be implemented for any new development or redevelopment projects greater than or equal to one acre, including projects less than one acre that are part of a large common plan of development or sale, that discharge into your small MS4? If yes, note page number and paragraph number.

Yes ☒ No ☐ Page Number 11 Paragraph Number 14-206(6) & 14-206(7). Please note that page 3, section 14-203(12) defines a construction activity.

5. Does the ordinance or regulatory mechanism contain or reference technical standards for water quality controls? If yes, note page number and paragraph number.

Yes ☐ No ☒ Page Number _____ Paragraph Number Pollutant reduction requirements of the permit have been waived for this MS4 pending a Phase 1 permit containing those requirements is issued to the City of Memphis.

6. Does the ordinance or regulatory mechanism clearly define the criteria for submittal -who must submit - of permanent stormwater management design information or plans? If yes, note page number and paragraph number.

Yes ☒ No ☐ Page Number 11 Paragraph Number 14-206(8) Please note that page 3, section 14-203(12) defines a construction activity.

7. Does the ordinance or regulatory mechanism require approval prior to construction of permanent stormwater management controls? If yes, note page number and paragraph number.

Yes ☒ No ☐ Page Number 13 Paragraph Number 14-206(11) Please note that page 12 section 14-206(10) requires construction plans to include any proposed new storm water infrastructure.

8. Does the ordinance or regulatory mechanism require re-submittal of permanent stormwater management design information or plans if site plans change after the initial design has been approved? If yes, note page number and paragraph number.

Yes ☒ No ☐ Page Number 12 Paragraph Number 14-206(8)

9. Does the ordinance or regulatory mechanism give the MS4 owner/operator the authority to penalize the owner of permanent stormwater management controls for violations? If yes, note page number and paragraph number.

Yes ☒ No ☐ Page Number 16 Paragraph Number 14-207(8)

10. Does the ordinance or regulatory mechanism require that permanent stormwater management controls have adequate and long-term operation and maintenance? If yes, note page number and paragraph number. If no, describe how the MS4 owner/operator maintains permanent stormwater management controls: _____

Yes ☒ No ☐ Page Number 15 Paragraph Number 14-207(7)

11. Does the ordinance or regulatory mechanism require establishment and maintenance of water quality riparian buffers in areas of new development and redevelopment?

Yes ☒ No ☐

12. Does the municipality presently have in place a technical review process (i.e. engineering department, planning department, zoning board) that evaluates new development and redevelopment with regard to the impact that permanent stormwater runoff will have on receiving streams?

Yes ☒ No ☐

If Yes, provide a brief narrative or a flow chart of the review process, describing the process steps, responsible personnel (by department, title and contact person), and criteria used for evaluation of information or plans that are submitted: The owner or developer submits a master plan to the Planning Commission for review and approval. The Department of Engineering Land Development Engineer and the Planning Department review the plan for compliance with the City of Bartlett Subdivision Regulation, storm water ordinance and the construction general permit then recommends disapproval, approval or approval subject to modifications. A public meeting of the Planning Commision is held addressing the master plan. After the master plan has been approved, the owner or developer submits a complateed engineered set of construction plans. These go through the same review and approval process. Construction plans are not approved until all changes are made.

B. Proposed Activities:

List the BMPs that you will implement in the area of the Permanent Stormwater Management Plans Review. These should be based on a set of priorities that you have identified in the area of the Permanent Stormwater Management Plans Review. Provide a short descriptive name to the BMP in the left column and more description in the right column.

PROPOSED BEST MANAGEMENT PRACTICES FOR PERMANENT STORMWATER PLANS REVIEW		
BMP	Name	DESCRIPTION
4A.	Ordinance	Storm Water Management Pollution Control Program ordinance and Subdivision Regulation
4B.	Plan Review	Technical review process for permanent storm water management
4C.	Magnet System	Web-based system for receiving and tracking complaints
4D.	Enforcement Response Plan	Provides potential responses to violations through progressive enforcement as need to achieve compliance

If you have additional BMPs to list, include in a separate attachment.

Describe the specific groups that will be targeted, if applicable? Developers

C. Measurable Goals and Implementation Milestones:

Attached at the end of this NOI is an addendum to list BMP Measurable Goals and Implementation Milestones. You must complete the addendum, providing more details on the goals and milestones for each BMP outlined in this NOI.

D. Administrative Information:

ADMINISTRATIVE INFORMATION FOR PERMANENT STORMWATER MANAGEMENT PLANS REVIEW	
PRIMARY CONTACT	POSITION OR TITLE
Donald W. Fent	Storm Water Coordinator

Identify other Department(s) that will be involved and their role.

OTHER	ROLE

DEPARTMENT(S)	
Planning Department	Plan review

Identify if you will partner with another MS4 Operator, or with another institution (e.g. Chamber of Commerce, Environmental interest organizations, civic groups) in order to carry out the chosen BMPs.

ENTITY	BMP

Will another governmental entity be responsible for implementing one or more chosen BMPs? If so, identify the entity and which BMP(s) it will implement. Include a copy of the interlocutory agreement, or contract, or proposed agreement with execution schedule.

ENTITY	BMP

SECTION 5 - POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

A. Current Activities:

The following is a set of questions on your current Pollution Prevention/Good Housekeeping for Municipal Operations Program. These questions are intended to highlight minimum program requirements under the MS4 permit. Each question with a "No" answer must be addressed with a solution in the MS4's proposed program.

1. Does the municipality's current Pollution Prevention/Good Housekeeping program provide annual training for employees responsible for municipal operations at facilities within the jurisdiction of the permittee that handle, generate and/or store materials which constitute a potential pollutant of concern for MS4s? Examples of these materials may include, but are not limited to, lubricants, fuels, sand, gravel, soil, salt, pesticide, fertilizer, garbage, trash, clippings, vehicles, equipment, and other wastes.

Yes ☐ No ☒

2. Are training activities documented? If yes, describe training and method of record-keeping: Training is provided by use of a PowerPoint presentation either in a classroom environment or individually. Training sign-in sheets are forwarded to the Storm Water Coordinator for tracking and scheduling. The Storm Water Coordinator uses an Excel spreadsheet for tracking and scheduling.

Yes ☒ No ☐

3. Has the MS4 owner/operator obtained a Tennessee Multi-Sector General Permit or a no-exposure certification for all qualifying municipal industrial activities? If yes, give permit numbers or attach copies of the No-Exposure Certification form.

Yes ☐ No ☒ Permit Numbers(s) _____ _____ _____ _____ _____

4. List municipal operations or facilities that have a potential for contaminating stormwater runoff such as the following: streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, snow disposal areas operated by the MS4, and waste disposal, storage, and transfer stations. If there is more than one facility for a given type of operation; give the number of such facilities. Indicate if an operation and maintenance plan, which includes maintenance activities, schedules and the proper disposal of waste from related structural and non-structural stormwater controls, has been implemented for each facility or operation.

FACILITY OR TYPE OF OPERATION	NUMBER OF FACILITIES	OPERATION AND MAINTENANCE PLAN IMPLEMENTED?
Vehicle maintenance facility	1	Yes ☒ No ☐
Solid waste transfer station	1	Yes ☒ No ☐
Waste water treatment plant	1	Yes ☒ No ☐
Material storage yard	3	Yes ☒ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐
		Yes ☐ No ☐

B. Proposed Activities:

List the BMPs that you will implement in the area of the Pollution Prevention and Good Housekeeping Program. These should be based on a set of priorities that you have identified in the area of the Pollution Prevention and Good Housekeeping Program. Provide a short descriptive name to the BMP in the left column and more description in the right column.

In addition to considering industrial-type operations, you must also consider municipal infrastructure, and related maintenance activities, maintenance schedules and long-term inspection procedures for structural controls and the proper disposal of waste from storm sewers/catch basins.

PROPOSED BEST MANAGEMENT PRACTICES FOR POLLUTION PREVENTION AND HOUSEKEEPING		
BMP	Name	DESCRIPTION
5A.	Municipal Employee Training	One time training for all employees using the general education component of Public Education and Involvement. Recurring training for park and open space maintenance, fleet and building maintenance, new construction and land distrubances and storm sewer maintenance
5B.	Basin Inspections	Recurring inspections and repairs of publicly owned detention and retention basins
5C.	Facility Storm Water Operations Plan	Descibes the BMPs for each municipal owned facility and recurring inspections for adequacy of those BMPs
5D.	Street and Municipal Parking Are Cleaning	Provides street cleaning for major roadways and municipal parking areas

If you have additional BMPs to list, include in a separate attachment.

Provide specific groups that will be targeted, if applicable: Municipal employees

C. Measurable Goals and Implementation Milestones:

Attached at the end of this NOI is an addendum to list BMP Measurable Goals and Implementation Milestones. You must complete the addendum, providing more details on the goals and milestones for each BMP outlined in this NOI.

D. Administrative Information:

ADMINISTRATIVE INFORMATION FOR POLLUTION PREVENTION AND HOUSEKEEPING	
PRIMARY CONTACT	POSITION OR TITLE

Donald W. Fent	Storm Water Coordinator

Identify other Department(s) that will be involved and their role.

OTHER DEPARTMENT(S)	ROLE
Public Works	Training, basin inspections, facility inspections, street and parking area cleaning
Parks	Training, basin inspections, facility inspections
Personnel	Provides list of municipal employees to Storm Water Coordinator

Identify if you will partner with another MS4 Operator, or with another institution (e.g. Chamber of Commerce, Environmental interest organizations, civic groups) in order to carry out the chosen BMPs.

ENTITY	BMP

Will another governmental entity be responsible for implementing one or more chosen BMPs? If so, identify the entity and which BMP(s) it will implement. Include a copy of the interlocutory agreement, or contract, or proposed agreement with execution schedule.

ENTITY	BMP

ADDENDUM TO SMALL MS4 NPDES PERMIT NOI - BMPs MEASURABLE GOALS AND MILESTONES

The purpose of this addendum is to record the measurable goals for each BMP, and the dates (month and year) by which interim actions are to be accomplished. Space is given for four BMPs for each of the six minimum measures. If necessary, attach additional BMP MEASURABLE GOALS AND MILESTONES as a separate attachment.

Measurable goals are BMP design objectives, or goals that will quantify the progress of implementing the actions or performance of a BMP. They are ways to measure activities or effects of a BMP. For each of the six minimum measures and for each BMP, define the measurable goal you will use to monitor effectiveness of this BMP. The BMPs you list here should match exactly those given in Part V., 1-5 of this NOI. For purposes of this NOI, the Public Education and Outreach and Public Involvement/Participation minimum measures have been combined.

For each BMP, establish milestones for implementation. These tables are set up for once/year milestones. You may change the milestone dates to time frames less than one year.

BEST MANAGEMENT PRACTICES FOR PUBLIC EDUCATION AND PUBLIC PARTICIPATION	
BMP 1A	MEASURABLE GOALS AND MILESTONES
Goal(s)	Public Information and Education Plan
Milestone Year 1	This program is already implemented. Review and update as required
Milestone Year 2	Review and update as required
Milestone Year 3	Review and update as required
Milestone Year 4	Review and update as required
Milestone Year 5	Review and update as required

BMP 1B	MEASURABLE GOALS AND MILESTONES
Goal(s)	Preventing Storm Water Pollution general education PowerPoint presentation - Present to neighborhood associations or other groups when requested
Milestone Year 1	One presentation
Milestone Year 2	One presentation
Milestone Year 3	One presentation
Milestone Year 4	One presentation
Milestone Year 5	One presentation

BMP 1C	MEASURABLE GOALS AND MILESTONES
Goal(s)	Educational pamhlets - Make available to public 100 of each each year
Milestone Year 1	Distribute 100 each
Milestone Year 2	Distribute 100 each
Milestone Year 3	Distribute 100 each
Milestone Year 4	Distribute 100 each
Milestone Year 5	Distribute 100 each

BMP 1D	MEASURABLE GOALS AND MILESTONES
Goal(s)	Local Cable Broadcasts - Broadcast one FYI segment annually with subject matter that includes storm water pollution prevention
Milestone Year 1	Broadcast one FYI segment
Milestone Year 2	Broadcast one FYI segment
Milestone Year 3	Broadcast one FYI segment
Milestone Year 4	Broadcast one FYI segment
Milestone Year 5	Broadcast one FYI segment

BEST MANAGEMENT PRACTICES FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION	
BMP 2A	MEASURABLE GOALS AND MILESTONES
Goal(s)	Update ordinances as required
Milestone Year 1	Review and update as required.
Milestone Year 2	Review and update as required.
Milestone Year 3	Review and update as required

Milestone Year 4	Review and update as required
Milestone Year 5	Review and update as required

BMP 2B	MEASURABLE GOALS AND MILESTONES
Goal(s)	Re-visit outfalls 30" or larger to waters of the state. Continue to collect data for outfalls not directly discharging to waters of the state
Milestone Year 1	Perform 20% of outfall re-visit inspections
Milestone Year 2	Perform 20 % of outfall re-visit inspections
Milestone Year 3	Perform 20% of outfall re-visit inspections
Milestone Year 4	Perform 20% of outfall re-visit inspections
Milestone Year 5	Perform 20% of outfall re-visit inspections

BMP 2C	MEASURABLE GOALS AND MILESTONES
Goal(s)	Maintain enforcement response plan
Milestone Year 1	Review and update as required
Milestone Year 2	Review and update as required
Milestone Year 3	Review and update as required
Milestone Year 4	Review and update as required
Milestone Year 5	Review and update as required

BMP 2D	MEASURABLE GOALS AND MILESTONES
Goal(s)	Maintain information current
Milestone Year 1	Review and update as required. Operate Storm Water Booth at fall festival
Milestone Year 2	Review and update as required. Operate Storm Water Booth at fall festival
Milestone Year 3	Review and update as required. Operate Storm Water Booth at fall festival
Milestone Year 4	Review and update as required. Operate Storm Water Booth at fall festival
Milestone Year 5	Review and update as required. Operate Storm Water Booth at fall festival

BEST MANAGEMENT PRACTICES FOR CONSTRUCTION SITE RUNOFF PROGRAM	
BMP 3A	MEASURABLE GOALS AND MILESTONES
Goal(s)	Update ordinance as required
Milestone Year 1	Review and update as required
Milestone Year 2	Review and update as required
Milestone Year 3	Review and update as required
Milestone Year 4	Review and update as required
Milestone Year 5	Review and update as required

BMP 3B	MEASURABLE GOALS AND MILESTONES
Goal(s)	Technical review of all plans submitted
Milestone Year 1	100% plan review
Milestone Year 2	100% plan review
Milestone Year 3	100% plan review
Milestone Year 4	100% plan review
Milestone Year 5	100% plan review

BMP 3C	MEASURABLE GOALS AND MILESTONES
Goal(s)	Respond to complaints within 24 hours of receipt
Milestone Year 1	Respond to complaints within 24 hours of receipt
Milestone Year 2	Respond to complaints within 24 hours of receipt
Milestone Year 3	Respond to complaints within 24 hours of receipt
Milestone Year 4	Respond to complaints within 24 hours of receipt
Milestone Year 5	Respond to complaints within 24 hours of receipt

BMP 3D	MEASURABLE GOALS AND MILESTONES
Goal(s)	100% of priority sites inspected
Milestone Year 1	100% of priority sites inspected

Milestone Year 2	100% of priority sites inspected
Milestone Year 3	100% of priority sites inspected
Milestone Year 4	100% of priority sites inspected
Milestone Year 5	100% of priority sites inspected

BEST MANAGEMENT PRACTICES FOR PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT PROGRAM	
BMP 4A	MEASURABLE GOALS AND MILESTONES
Goal(s)	Update ordinance as required
Milestone Year 1	Review and update as required
Milestone Year 2	Review and update as required
Milestone Year 3	Review and update as required
Milestone Year 4	Review and update as required
Milestone Year 5	Review and update as required

BMP 4B	MEASURABLE GOALS AND MILESTONES
Goal(s)	Technical review of all plans submitted
Milestone Year 1	100% plan review
Milestone Year 2	100% plan review
Milestone Year 3	100% plan review
Milestone Year 4	100% plan review
Milestone Year 5	100% plan review

BMP 4C	MEASURABLE GOALS AND MILESTONES
Goal(s)	Respond to complaints within 24 hours of receipt
Milestone Year 1	Respond to complaints within 24 hours of receipt
Milestone Year 2	Respond to complaints within 24 hours of receipt
Milestone Year 3	Respond to complaints within 24 hours of receipt
Milestone Year 4	Respond to complaints within 24 hours of receipt
Milestone Year 5	Respond to complaints within 24 hours of receipt

BMP 4D	MEASURABLE GOALS AND MILESTONES
Goal(s)	Maintain enforcement response plan
Milestone Year 1	Review and update as required
Milestone Year 2	Review and update as required
Milestone Year 3	Review and update as required
Milestone Year 4	Review and update as required
Milestone Year 5	Review and update as required

BEST MANAGEMENT PRACTICES FOR MUNICIPAL POLLUTION PREVENTION AND GOOD HOUSEKEEPING	
BMP 5A	MEASURABLE GOALS AND MILESTONES
Goal(s)	100% employee training for general pollution prevention and 100% recurring training for work centers that are considered pollution generators
Milestone Year 1	100% new employee training. 20% recurring training.
Milestone Year 2	100% new employee training. 20% recurring training.
Milestone Year 3	100% new employee training. 20% recurring training.
Milestone Year 4	100% new employee training. 20% recurring training.
Milestone Year 5	100% new employee training. 20% recurring training.

BMP 5B	MEASURABLE GOALS AND MILESTONES
Goal(s)	100% basin inspections per year
Milestone Year 1	100% basin inspections and repair as necessary.
Milestone Year 2	100% basin inspections and repair as necessary.
Milestone Year 3	100% basin inspections and repair as necessary.
Milestone Year 4	100% basin inspections and repair as necessary.

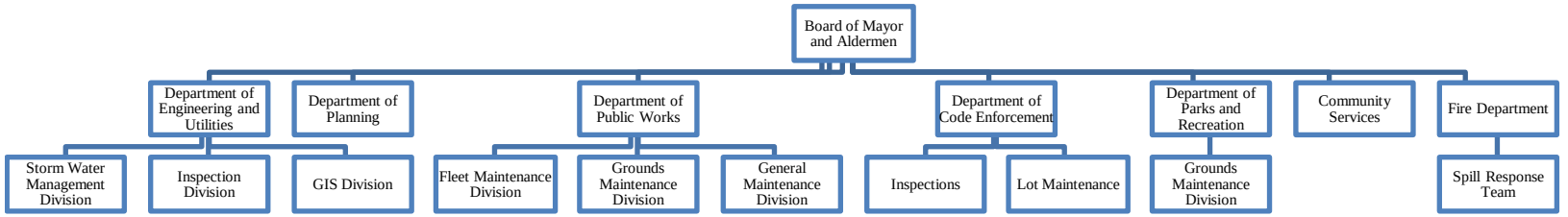
Milestone Year 5	100% basin inspections and repair as necessary.

BMP 5C	MEASURABLE GOALS AND MILESTONES
Goal(s)	Inspect each facility and update plan as required
Milestone Year 1	Inspect 20% of facilities and update plans as required.
Milestone Year 2	Inspect 20% of facilities and update plans as required
Milestone Year 3	Inspect 20% of facilities and update plans as required
Milestone Year 4	Inspect 20% of facilities and update plans as required
Milestone Year 5	Inspect 20% of facilities and update plans as required

BMP 5D	MEASURABLE GOALS AND MILESTONES
Goal(s)	Sweep 10,000 lane miles each year
Milestone Year 1	Sweep 10,000 lane miles
Milestone Year 2	Sweep 10,000 lane miles
Milestone Year 3	Sweep 10,000 lane miles
Milestone Year 4	Sweep 10,000 lane miles
Milestone Year 5	Sweep 10,000 lane miles

Tab 2

Organizational Chart


Board of Mayor and Aldermen
Department of Engineering and Utilities
Department of Planning
Department of Public Works
Department of Code Enforcement
Department of Parks and Recreation
Community Services
Fire Department
Storm Water Management Division
Inspection Division
GIS Division
Fleet Maintenance Division
Grounds Maintenance Division
General Maintenance Division
Inspections
Lot Maintenance
Grounds Maintenance Division
Spill Response Team

Tab 3

Maps

A. Municipal wastewater treatment plants, vehicle fleet maintenance center, city roads, perennial and intermittent streams, and topography or drainage patterns

B. Zoned and actual areas of commercial or industrial activity

C. Explanation to why other maps not included

D. Hot Spots

Tab 3A

Maps

Municipal wastewater treatment plants, vehicle fleet maintenance center, city roads, perennial and intermittent streams, and topography or drainage patterns

Solid Waste Complex

Waste Water Treatment Plant

MS4 JURISDICTIONAL BOUNDARY (TYPICA

Treatment Lagoon

Vehicle Fleet Maint. Center - Public Works

Legend

phase2_drainagebasins

NAME

- LOOSAHATCHIE RIVER BUCKHEAD CREEK BASIN 5
- LOOSAHATCHIE RIVER HOWARD CREEK BASIN 1
- LOOSAHATCHIE RIVER OLIVER CREEK BASIN 6
- LOOSAHATCHIE RIVER SANDEMAN BASIN BASIN 4
- LOOSAHATCHIE RIVER RANER CREEK BASIN 2
- LOOSAHATCHIE RIVER ROCKYFERD BASIN BASIN 3
- WOLF RIVER FLETCHER CREEK UPPER BASIN BASIN 7
- WOLF RIVER FLETCHER CREEK WOLFCHASE BASIN 6
- WOLF RIVER FLETCHER CREEK LATERAL A BASIN 5
- WOLF RIVER FLETCHER CREEK LATERAL C BASIN 4
- WOLF RIVER FLETCHER CREEK LATERAL E BASIN 2
- WOLF RIVER FLETCHER CREEK BASIN 1
- WOLF RIVER FLETCHER CREEK LATERAL D BASIN 3
- WOLF RIVER HARRINGTON CREEK MAIN STEM BASIN 2
- WOLF RIVER HARRINGTON CREEK LATERAL "E" BASIN 4
- WOLF_RIV HARRINGTON_CREE LATERAL A,B BASIN 1
- WOLF RIVER HARRINGTON CREEK LATERAL C,D BASIN 3

0 2,500 5,000 10,000 Feet

Tab 3B

Maps

Zoned and actual areas of commercial and industrial activity

MS4 JURISDICTIONAL BOUNDARY (TYPIC

N
W E
S

Legend

ACTUAL AREAS OF COMMERCIAL OR INDUSTRIAL ACTIVITY

COMMERCIAL_INDUSTRIAL ZONING

0 2,500 5,000 10,000 Feet

Tab 3C

Maps

Explanation to why other maps are not included

PART II
DESCRIPTION OF STORM SYSTEM

ITEM C
MAPS

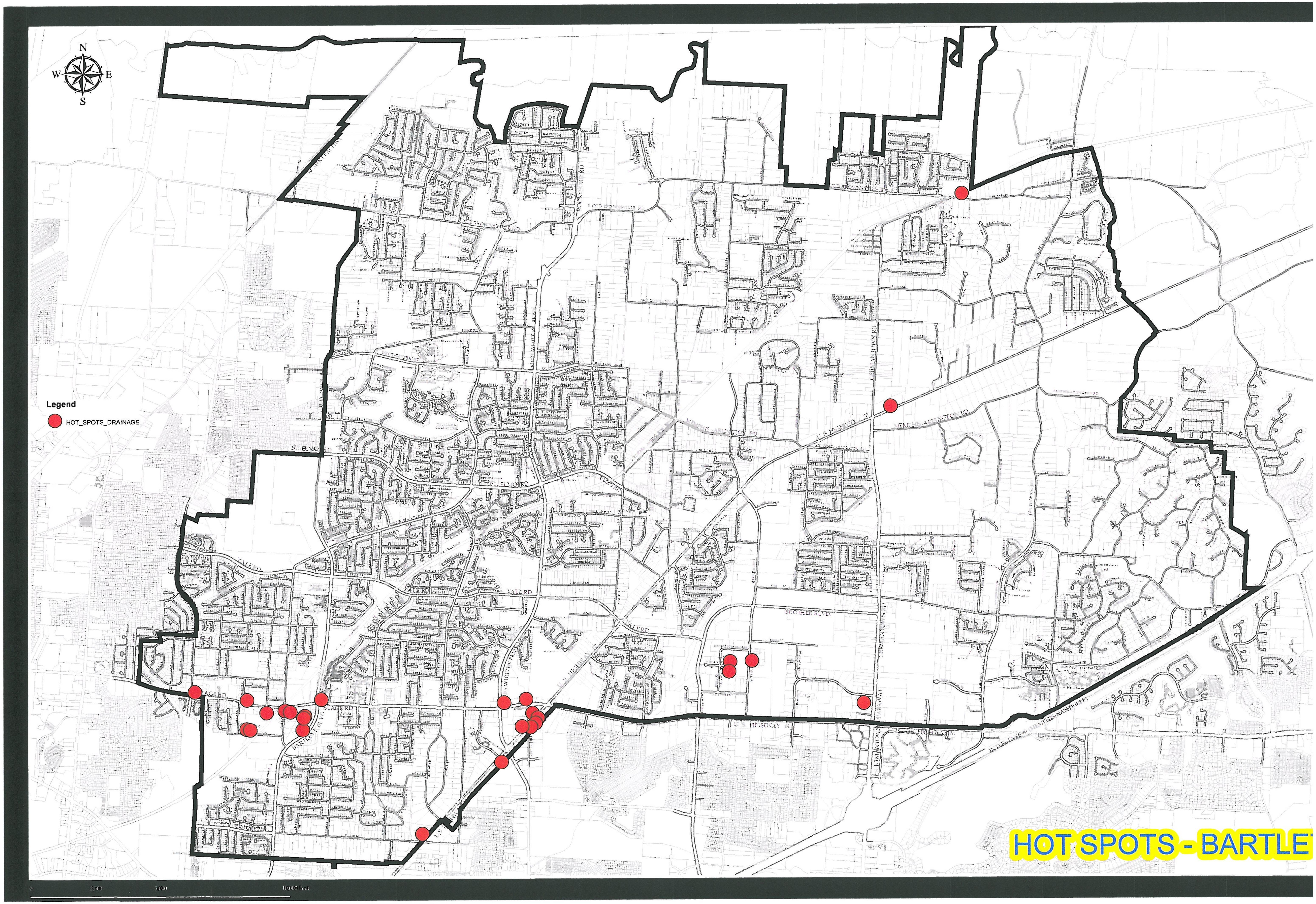
Maps for the following items were not submitted with the NOI because there are no such facilities located within this MS4's jurisdiction.

- Other municipally owned/operated industrial facilities
- Power plants
- Airports
- Military Installations
- State vocational, technical, college or universities
- Federal vocational, technical, college or universities
- County roads
- Landfills

Tab 3D

Maps

Hot Spots


HOT SPOTS - BARTLET
Legend
HOT_SPOTS_DRAINAGE
N
S
E
W
ST ELMO RD
STAGE RD
YALE RD
BARTLETT BLVD
U.S. HIGHWAY 70
MEMPHIS-ARLINGTON RD
GERMANTOWN RD
BROTHER BLVD
U.S. HIGHWAY 64
GERMANTOWN PARKWAY
INTERSTATE 40 (MEMPHIS-NASHVILLE)
0
2,500
5,000
10,000 Feet

Tab 4

Existing Legal Authority to Control Stormwater Discharges to MS4

A. Storm Water Ordinance

B. Excerpts from Subdivision Regulation

C. Excerpts from Waste Water Ordinance

Tab 4A

Storm Water Ordinance

CHAPTER 2

STORM WATER MANAGEMENT AND POLLUTION CONTROL PROGRAM

SECTION

14-201. General provisions.

(1) *Objectives.* The objectives of this chapter are to:
   (1) Protect, maintain and enhance the environment of the City of Bartlett (referred herein as the City) and the public health, safety and general welfare of the citizens of the City by controlling discharges of pollutants to the City's storm water system and to maintain and improve the quality of the receiving waters into which the storm water outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands and groundwater of the City;
   (2) Enable the City to comply with the National Pollution Discharge Elimination System (NPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4) and applicable regulations, 40 CFR 122.26 for storm water discharges;
   (3) Allow the City to exercise the powers granted in Tennessee Code Annotated (TCA) §68-221-1105, which provides that, among other powers cities have with respect to storm water facilities, is the power of ordinance or resolution to:
      (i) Exercise general regulation over the planning, location, construction, and operation and maintenance of storm water facilities in the City, whether or not owned and operated by the City;
      (ii) Adopt any rules and regulations deemed necessary to accomplish the purposes of this statute, including the adoption of a system of fees for services and permits;
      (iii) Establish standards to regulate storm water discharges and to regulate storm water contaminants as may be necessary to protect water quality;
      (iv) Review and approve plans and plats for storm water management in proposed subdivisions or commercial developments;
      (v) Issue permits for storm water discharges or for the construction, alteration, extension, or repair of storm water facilities;
      (vi) Suspend or revoke permits when it is determined that the permittee has violated any applicable ordinance, resolution, or condition of the permit;

(vii) Regulate and prohibit discharges into storm water facilities of sanitary, industrial, or commercial sewage or waters that have otherwise been contaminated; and

(viii) Expend funds to remediate or mitigate the detrimental effects of contaminated land or other sources of storm water contamination, whether public or private.

(4) Eliminate any non-allowable discharges to the MS4 that adversely impact water quality;

(5) Provide for the sound use and development of all flood-prone areas in such a manner as to maximize beneficial use without increasing flood hazard potential or diminishing the quality of the natural storm water resources;

(6) Provide for sound fiscal management of the City and maintain a stable tax base by providing appropriate fees and other dedicated funding sources for the administration of the watershed management program;

(7) Increase the awareness of the public, property owners and potential homebuyers regarding storm water impacts (i.e. flooding, erosion);

(8) Minimize prolonged business interruptions;

(9) Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone, storm and sanitary sewer lines; and streets and bridges;

(10) Promote a functional public and private storm water management system that will not result in excessive maintenance costs;

(11) Encourage the use of natural and aesthetically pleasing design that maximizes preservation of natural areas;

(12) Promote the use of comprehensive watershed management plans;

(13) Encourage preservation of floodplains, floodways and open spaces; and

(14) Encourage community stewardship of the City's water resources.

(2) *Administering entity.* The City's Director of Engineering and Utilities (referred herein as the Director) and, in the event of the Director's absence or a vacancy in the office of Director, the Deputy Director shall administer the provisions of this ordinance.

(3) *Storm water ordinance.* The intended purpose of this ordinance is to safeguard property and public welfare by regulating storm water drainage and requiring temporary and permanent provisions for its control. If any requirement specified herein conflicts with requirements in other City ordinances, regulations or policies, the more stringent requirement for the safeguard of human life, property or water quality shall apply. Design, planning and engineering companies should use this ordinance to facilitate their designs for control of storm water in new and re-development.

14-202. Jurisdiction. The provisions of this chapter apply to the area within the jurisdictional boundaries of the City of Bartlett.

14-203. Definitions. For the purpose of this chapter, unless specifically defined below, words or phrases shall be interpreted so as to give them the meaning they have in common usage and to give this chapter it's most effective application. Words in the singular shall include the plural, and words in the plural shall include the singular. Words used in the present tense shall include the future tense. The word "shall" connotes mandatory and not discretionary; the word "may" is permissive.

(1) ***Accidental discharges*** means a discharge prohibited by this chapter into the MS4 and that occurs by chance and without planning or consideration prior to occurrence.

(2) ***As-built plans*** means drawings depicting conditions as they were actually constructed.

(3) ***Best management practices (BMPs)*** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(4) ***Brownfield*** means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

(5) ***Buffer zone, water quality buffer or waterway buffer*** means a setback from the top of the water body's bank of undisturbed vegetation, including trees, shrubs, herbaceous vegetation, enhanced or restored vegetation, or the re-establishment of native vegetation bordering streams, ponds, wetlands, springs, reservoirs or lakes from buildings and/or structures and other land uses that alter habitat, geomorphology, water quality, and hydrology. Waterway buffers may also act as floodplain storage and a passive drainage way.

(6) ***Channel*** means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.

(7) ***Clean Water Act, CWA or the Act*** means the Clean Water Act of 1977 or the Federal Water Pollution Control Act.

(8) ***Chronic violator*** means a violator that commits two or more of any violation within a six (6) month period.

(9) ***Commercial*** means property devoted in whole or part to commerce, that is, the exchange and buying and selling of commodities or services. The term shall include, by way of example, but not be limited to the following businesses: amusement establishments, animal clinics or hospitals, automobile service stations, automobile dealerships for new or used vehicles, automobile car washes, automobile and vehicular repair shops, banking establishments, beauty and barber shops, bowling alleys, bus terminals, and repair shops, camera shops, dental offices or clinics, day care centers, department stores, drug stores, funeral homes, furniture stores, gift shops, grocery stores, hardware stores, hotels, jewelry stores, laboratories, laundries, and dry cleaning establishments, liquor stores, medical offices and clinics, motels, movie theaters, office buildings, paint stores or shops, parking lots, produce markets, professional offices, radio stations, repair establishments, retail stores, television stations and production facilities, theaters, truck or construction equipment service stations, truck or construction equipment dealerships for new or used vehicles, truck or construction equipment washing facilities and truck or construction equipment repair shops.

(10) ***Common plan of development or sale*** broadly means any announcement or documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. A common plan of development or sale identifies a situation in which multiple areas of disturbance are occurring on contiguous areas. This applies because activities may take place at different times, on different schedules, by different operators.

(11) ***Compliance inspection*** means an inspection of a construction activity for the purpose of determining the adherence to and effectiveness of approved BMPs.

(12) ***Construction activity*** means any clearing, grading, filling and excavating, or other similar construction activities that result in the disturbance of one acre or more of total land area or less than one acre of land disturbance at a site that is part of a larger common plan of development or sale that comprise at least one acre of land disturbance. The term shall not include:

a. Such minor construction activities as home gardens and individual home landscaping, home repairs, home maintenance work and other related activities that result in minor soil erosion;

b. Individual service and sewer connections for single or two (2) family residences;
c. Agricultural practices involving the establishment, cultivation or harvesting of products of the field or orchard, preparing and planting pasture land, forestry land management practices including harvesting, farm ponds, dairy operations and livestock and poultry management practices and construction of farm buildings;
d. Any project carried out under the technical supervision of the Natural Resources Conservation Service of the United States Department of Agriculture; and
e. Installation, maintenance, and repair of any underground public utility lines when such activity occurs in an existing hard surface road, street or sidewalk, provided the activity is confined to the area of the road, street or sidewalk which is hard surfaced and a street, curb, gutter or sidewalk permit has been obtained, and if such area is less than one acre of disturbance,

These excluded activities may be undertaken without formal notice to the Manager; however, the persons conducting these activities shall remain responsible for otherwise conducting those activities in accordance with the provisions of this ordinance and other applicable law including responsibility for erosion prevention and controlling sedimentation and runoff.

(13)***Design storm event*** means a hypothetical storm event of a given frequency interval and duration, used in the analysis and design of a storm water facility.

(14)***Development*** means any activity subject to the State of Tennessee General NPDES Permit for Discharge of Stormwater Associated with Construction Activities (TNCGP).

(15)***Director*** means the City of Bartlett Director of Engineering and Utilities and, in the event of the Director's absence or a vacancy in the office of Director, the Deputy Director.

(16)***Discharge of a pollutant***, ***discharge of pollutants*** and ***discharge***, when used without qualification, each refer to the addition of pollutants to waters from a source. This definition includes additions of pollutants into waters of the state from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. (40 CFR §122.2)

(17)***Easement*** means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, municipality or other legal entity has in the land of another.

(18)***Erosion*** means the removal of soil particles by the action of water, wind, ice or other geological agents, whether naturally occurring or acting in conjunction with or promoted by human activities or effects.

(19)***Erosion prevention and sediment control plan*** means a written plan, including drawings and other graphic representations, to minimize soil erosion and sedimentation resulting from a construction activity.

(20)***Illicit connection*** means illegal and/or unauthorized connections to the MS4 whether or not such connections result in discharges into the system.

(21)***Illicit discharge*** means any discharge to the MS4 that is not entirely composed of storm water, except discharges authorized under a NPDES permit (other than the NPDES permit for discharges from the MS4), discharges resulting from fire fighting activities (40 CFR §122.26(b)(2)) and allowable discharges listed in §14-205.

(22)***Industrial facility*** means a business engaged in industrial production or service, that is, a business characterized by manufacturing or productive enterprise or a related service business. This term shall include by way of example but not be limited to the following: apparel and fabric finishers, automobile salvage and junk yards, blast furnace, blueprint and related shops, boiler works, cold storage plants, contractor's plants and storage facilities, foundries, furniture and household goods manufacturing, forge plants, greenhouses, manufacturing plants, metal fabrication

shops, ore reduction facilities, planning mills, rock crushers, rolling mills, saw mills, smelting operations, stockyards, stone mills or quarries, textile production, utility transmission or storage facilities, truck or construction equipment salvage or junkyards, warehousing, and wholesaling facilities.

(23)***Land disturbing activity*** means any activity on property that result in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, by way of example and are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, and excavation.

(24)***Maintenance*** means any activity that is necessary, including but not limited to reconstruction and property maintenance, to keep a storm water facility in good working order so as to function as designed.

(25)***Maintenance agreement*** means a document recorded in the Shelby County Register's office that acts as a property deed restriction, and which provides for long-term maintenance of storm water management facilities.

(26)***Manager*** means the City of Bartlett Director of Engineering and Utilities or the Director's duly authorized representative and, in the event of the Director's absence or a vacancy in the office of Director, the Deputy Director.

(27)***Municipal inspector*** means an employee of the City that has successfully completed the Tennessee Erosion Prevention and Sediment Control Level 1 Course or Recertification Course and whose duties include the inspection of construction activities.

(28)***Municipal Separate Storm Sewer System or MS4*** means a conveyance or system of conveyances (including roads and streets with their drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

a. Owned and operated by the City;
b. Designed or used for collecting or conveying storm water;
c. Which is not a combined sewer; and
d. Which is not part of a publicly owned treatment works as defined at 40 CFR §122.2. (40 CFR §122.26(b)(8))

(29)***National Pollutant Discharge Elimination System or NPDES permit*** means a permit issued pursuant to 33 U.S.C. Chapter 26 Water pollution Prevention and Control, Subchapter IV Permits and Licenses, §1342.

(30)***Notice of Coverage or NOC*** means a written approval from TDEC authorizing site operators to discharge storm water associated with construction activities in accordance with the effective TNCGP.

(31)***Notice of Intent or NOI*** means a written request to TDEC by site operators for authorization to discharge storm water associated with construction activities in accordance with the effective TNCGP.

(32)***Off-site storm water facility*** means a structural BMP located outside the subject property boundary described in the permit application for land development activity.

(33)***On-site storm water facility*** means a structural BMP located within the subject property boundary described in the permit application for land development.

(34)***Peak flow*** means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

(35)***Person*** means any individual, partnership, co-partnership, firm, company, trust estate, governmental entity or any other legal entity, or their legal representatives, agents, or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by context.

(36)***Pollution*** means any human-made or human-induced change in the chemical, physical or biological and radiological integrity of water.

(37)***Redevelopment*** means a construction activity that alters developed land and increases the site or building impervious footprint, or offers a new opportunity for storm water controls. The term is not intended to include such activities as exterior remodeling, which would not be expected to cause adverse storm water impacts.

(38)***Regional facility*** means a storm water management facility designed to serve more than two (2) properties and one hundred (100) or more acres of drainage area. A regional facility typically includes a storm water pond.

(39)***Routine inspection*** means the normal visits of municipal inspectors to construction activities for the purpose of monitoring the construction process.

(40)***Runoff*** means that portion of the precipitation on a drainage area that is discharged from the area into the MS4.

(41)***Sediment*** means solid material, both inorganic and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

(42)***Sedimentation*** means soil particles suspended in storm water that can settle in stream beds.

(43)***Significant spills*** means releases of oil or hazardous substances in excess of the reportable quantities under section 311 of the CWA (40 CFR 110.10 and CFR 117.21) or section 102 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), (CFR 302.4).

(44)***Stabilization*** means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.

(45)***Storm water*** means water induced or created from precipitation whether rain, snow or ice and is either stored, collected, detained, absorbed or discharged.

(46)***Storm water management facility*** means a storm water management control device, structure, or system of such physical components designed to treat, detain, store, convey, absorb, conserve, protect, or otherwise control storm water.

(47)***Storm water management*** means the collection, conveyance, storage, treatment and disposal of storm water in a manner to meet the objectives of this chapter and its terms, including, but not limited to, measures that control the increase volume and rate of storm water runoff and water quality impacts caused or induced by man made changes in the land.

(48)***Storm Water Management Plan or SWMP*** means the set of drawings or other documents that comprise all of the information and specifications for the programs, drainage systems, structures, BMPs, concepts, and techniques intended to maintain or restore quality and quantity of storm water runoff to pre-development levels.

(49)***Storm Water Pollution Prevention Plan or SWPPP*** means a written site specific plan to eliminate or reduce and control the pollution of storm water through designed facilities, natural or constructed, and BMPs.

(50)***Storm water runoff*** means storm water flow on the surface of the ground.

(51)***Storm water sewer system*** means the network of conveyances and storage facilities that collect, detain, absorb, treat, channel, discharge or otherwise control the quantity and/or quality of storm water.

(52)***Stream*** means any river, creel, slough or natural water course in which water usually flows in a defined bed or channel. It is not essential that the flowing be uniform or uninterrupted. The fact that some parts of the bed have been dredged or improved does not prevent the water course from being a stream. For the purposes of this chapter, a stream is not a wet weather conveyance as also defined herein. Typically, as a guideline, perennial streams are identified on USGS maps by solid blue lines and intermittent streams are depicted by dashed blue lines or as determined by TDEC.

(53)***Structural BMPs*** means facilities that are constructed to provide control of storm water runoff.

(54)***Surface water*** means waters on the surface of the earth in bounds created naturally or artificially including, by way of example and not limited to, streams, other water courses, lakes and reservoirs.

(55)***Transit-oriented development*** means a mixed-use residential and commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership.

(56)***Water quality buffer***. See ***Buffer zone***.
(57)***Watercourse*** means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.
(58)***Water quality*** means characteristics that are related to the physical, chemical, biological, and/or radiological integrity of storm water.
(59)***Waters or waters of the state*** means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in a single ownership which does not combine or effect a junction with natural surface or underground waters.
(60)***Watershed*** means all the land area that contributes runoff to a particular point along a waterway.
(61)***Watershed management program*** means a balanced program and plan controlling the peak discharge and quality of water resources through comprehensive land and water resource management. Such management includes but is not limited to pollution control, land development controls, best management practices both structural and non-structural, preservation, habitat protection, and well head protection. This program incorporates the state's NPDES storm water quality permit program.
(62)***Watershed master plan*** means the guidance vehicle for implementing the watershed management program.
(63)***Waterway buffer***. See ***Buffer zone***.
(64)***Wet weather conveyance*** means man-made or natural water courses, including natural water courses that have been modified by channelization, that flow only in direct response to precipitation runoff in their immediate locality and whose channels are above the groundwater table and are not suitable for drinking water supplies and in which hydrological and biological analyses indicate that, under normal weather conditions, due to naturally occurring ephemeral or low flow, there is not sufficient water to support fish or multiple populations of obligate lotic aquatic organisms whose life cycle includes an aquatic phase of at least two months. (Rules and Regulations of the State of Tennessee, Chapter 1200-4-3-.04(3)) Rule 1200-4-8-.02(7) requires that waters designated as wet weather conveyances shall be protective of wildlife and humans that may come in contact with them and maintain standards applicable to all downstream waters. No other use classification or water quality criteria apply to these waters.

14-204. Abbreviations.

(1) BMP – Best Management Practice
(2) ARAP – Aquatic Resource Alteration Permit
(3) CERCLA – Comprehensive Environmental Response Compensation and Liability Act in its original form or as amended.
(4) CFR – Code of Federal Regulations
(5) CWA – Clean Water Act
(6) FEMA – Federal Emergency Management Agency
(7) MS4 – Municipal Separate Storm Sewer System
(8) NOC – Notice of Coverage
(9) NOI – Notice of Intent
(10) NPDES – National Pollution Discharge Elimination System
(11) SWMP – Storm Water Management Plan
(12) SWPPP – Storm Water Pollution Prevention Plan
(13) TCA – Tennessee Code Annotated (latest version)
(14) TDEC – Tennessee Department of Environment and Conservation
(15) TNCGP – Tennessee Construction General Permit (latest version), which is incorporated by reference in this ordinance as if fully set herein.

(16)TMSP – Tennessee Multi-Sector Permit for storm water discharges associated with industrial activity (see §14-210), which is incorporated by reference in this ordinance as if fully set herein.
(17)USACOE – United States Army Corp of Engineers
(18)U.S.C. – United States Code

14-205. Illicit discharges.

(1) Scope. This section shall apply to all water generated on developed or undeveloped land entering the MS4.
(2) Prohibition of illicit discharges. No person shall introduce or cause to be introduced into the MS4 any discharge that is not composed entirely of storm water. The commencement, conduct or continuance of any non-storm water discharge to the MS4 is prohibited. Discharge of storm water in any manner in violation of this chapter; or any violation of any condition of a permit issued pursuant to this chapter; or any violation of any condition of a storm water discharge permit issued by TDEC is hereby declared a public nuisance and shall be corrected or abated.
   a. It shall be unlawful for any person to improperly dispose any contaminant into the MS4. Penalties for minor discharges that have no significant adverse impact on safety, health, the welfare of the environment, or the functionality of the MS4 may be waived at the discretion of the Manager. Contaminates include, by way of example but are not limited to, the following:
      i. Trash or debris;
      ii. Construction material;
      iii. Petroleum products including but not limited to oil, gasoline, grease, fuel oil, or hydraulic fluids;
      iv. Antifreeze and other automotive products;
      v. Metals in either particulate or dissolved form;
      vi. Flammable or explosive materials;
      vii. Radioactive materials;
      viii. Batteries including but not limited to, lead acid automobile batteries, alkaline batteries, lithium batteries, or mercury batteries;
      ix. Acids, alkalis, or bases;
      x. Paints, stains, resins, lacquers, or varnishes;
      xi. Degreasers and/or solvents;
      xii. Drain cleaners;
      xiii. Pesticides, herbicides, or fertilizers;
      xiv. Steam cleaning wastes;
      xv. Soaps, detergents, or ammonia;
      xvi. Swimming pool backwash including chlorinated swimming pool discharge.
      xvii. Chlorine, bromine, and other disinfectants;
      xviii. Heated water;
      xix. Animal waste from commercial animal or feeder lot operations;
      xx. Any industrial and sanitary wastewater, including leaking sewers or connections;
      xxi. Recreational vehicle waste including grey water;
      xxii. Animal carcasses;
      xxiii. Food wastes;
      xxiv. Medical wastes;
      xxv. Collected lawn clippings, leaves, branches, bark, and other fibrous materials;
      xxvi. Collected silt, sediment, or gravel;
      xxvii. Dyes, except as stated in §14-205(2)(b).
      xxviii. Chemicals not normally found in uncontaminated water;

xxix. Any hazardous material or waste, not listed above.
xxx. Washing of fresh concrete for cleaning and/or finishing purposes or to expose aggregates;
xxxi. Junk motor vehicles as defined in §14-205(2)(c);
xxxii. Liquid from solid waste disposal containers;
xxxiii. Domestic animal waste.

b. Dye testing is permitted but requires verbal notification to the Manager a minimum of twenty-four (24) hours prior to the date of the test. The City of Memphis, Shelby County and City of Bartlett governmental agencies are exempt from this requirement.
c. Junk motor vehicle means any vehicle which shall include by way of example but not be limited to the following vehicle types: automobiles, construction equipment, motorcycles, and trucks, which meet all of the following requirements:
   i. Is three(3) years old or older;
   ii. Is extensively damaged, such damage including but not limited to any of the following: A broken window or windshield or missing wheels, engine or transmission;
   iii. Is apparently inoperable;
   iv. Is without a valid current registration;
   v. Has a fair market value equivalent only to the value of the scrap in it.

(3) Allowable discharges. The following types of uncontaminated discharges shall not be considered prohibited discharges for the purpose of this chapter unless the Manager determined that the type or quantity of discharge, whether singly or in combination with others, is causing significant contamination of the MS4.
a. Potable water and potable water line flushing;
b. Air conditioning condensation;
c. Water from crawl space pumps or footing drains;
d. Landscape irrigation or lawn watering;
e. Non-commercial car and boat washing;
f. De-chlorinated swimming pool water;
g. Materials placed as part of an approved habitat restoration or bank stabilization project;
h. Rising ground waters, ground water infiltration, pumped ground water, springs, diverted stream flows, and flows from riparian habitats and wetlands;
i. Discharges within the constraints of the TNCGP or any other permit issued by TDEC;
j. Discharges from emergency fire fighting activities and exercises (a storm water pollution prevention plan should be prepared to address discharges or flows from fire fighting only where such discharges are identified as significant sources of pollutants to waters of the United States);
k. Common practices for water well disinfections;
l. Unless otherwise prohibited by this chapter, any discharge that could be made directly to waters of the state without a federal or state permit being required; and
m. Other types of discharges as determined by the Manager.

(4) Prohibition of illicit connections. Any connection, existing or future, identified by the Manager as that which could convey anything not composed entirely of storm water, with the exception of connections of allowable discharges in §14-205(3) and connections conveying discharges pursuant to a NPDES permit (other than an NPDES storm water permit), directly to the MS4 is considered an illicit connection of which the construction, use, maintenance or continued existence is prohibited. Existing illicit connections shall be stopped at the owner's expense.

(5) Reduction of storm water pollutants by use of BMPs. Any person responsible for a property or premises which is or may be the source of an illicit discharge, may be required to implement, at that person's expense, the BMPs necessary to prevent

further discharge of pollutants to the MS4. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water from an industrial activity, to the extent practicable, shall be deemed in compliance with the provisions of this section.

(6) Notification of spills. Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting in, or may result in, illicit discharges or pollutants discharging into the MS4, the person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials the person shall immediately notify emergency response agencies of the occurrence via 911. In the event of a release of non-hazardous materials, the person shall notify the Manager in person or by telephone, fax, or email, no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the Manager within three (3) business days of the telephone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

(7) Illegal dumping. No person shall dump or otherwise deposit outside an authorized landfill, convenience center or other authorized garbage or trash collection point, any trash or garbage of any kind or description on any private or public property, occupied or unoccupied, inside the City.

14-206. Construction and Permanent Storm Water Management Design and Construction.

(1) MS4 Storm Water design and BMP manuals. The City adopts as its MS4 design and BMP manuals for construction and permanent storm water management the following publications, which are incorporated by reference in this ordinance as if fully set herein. The manuals include a list of acceptable BMPs including specific design performance criteria and operation and maintenance requirements for each storm water practice and may be updated and expanded from time to time at the discretion of the Manager. Designers and engineers are encouraged to use new and innovative techniques that perform to at least the minimum standards contained in the manuals. The specific application of BMP practices is subject to approval of the Manager.

a. TDEC Erosion Prevention and Sediment Control Handbook (most current edition is available on the internet).
b. Shelby County Watershed Management Practices Manual.
c. City of Memphis/Shelby County Storm Water Management Manual (available on the internet).
d. City of Bartlett Watershed Management Practices Manual (when developed).
e. City of Bartlett Standard Specifications and Drawings.

(2) Land development. All land development in the City including, by example but not limited to, site plan applications, subdivision applications, land disturbance applications and grading applications for new development or redevelopment construction activities shall be subject to the provisions of this chapter, the City's floodplain portion of the zoning ordinance, and the subdivision ordinance. Other projects may be required to obtain authorization under this ordinance if:

a. The Manager has determined that storm water discharge from a site is causing, contributing to, or is likely to contribute to a violation of state water quality standards;

b. The Manager has determined that the storm water discharge is, or is likely to be, a significant contributor of pollutants to waters of the state; or
c. Changes in state or federal rules require sites of less than one (1) acre that are not part of a larger common plan of development or sale to obtain a storm water permit.

(3) NOI. The operators of non-exempt construction activities shall apply to TDEC for coverage under the TNCGP as part of the City's plan review and approval process. Application procedures and required information for submittal of the NOI is contained in the TNCGP. An individual permit may be required as specified in section 7 of the TNCGP as well as an Aquatic Resource Alteration Permit (ARAP) as specified in section 10 of the TNCGP.

(4) SWPPP. The operators of non-exempt construction activities shall provide a copy of the construction activity SWPPP for review as part of the City's plan review and approval process. The TNCGP specifies what information is required to be included in the SWPPP. Changes to the SWPPP after plan review and approval shall be submitted to the Director for approval. Operators of non-exempt construction activities involving the building of family residential units shall submit a copy of the SWPPP to the City's Director of Code Enforcement.

(5) Erosion Control Phasing Plan. An erosion control phasing plan describing the vegetative stabilization and management techniques to be used at a site during and after construction is completed shall be submitted with the final design as part of the City's plan review and approval process. This plan shall explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved. Changes to the erosion control phasing plan after plan review and approval shall be submitted to the Director for approval. See §14-207 for erosion control phasing plan and stabilization requirements.

(6) General design performance criteria for permanent storm water management. The storm water discharges from new development and redevelopment sites are to be managed such that post-development peak discharge does not exceed the pre-development peak discharge at the site unless approved by the Director.
a. All new development is required to discharge post development flows at the 2, 5, 10, 25, 50 and 100 year storm events at a peak level of pre-existing conditions. The Director may require post development flows at other intervals. Discharge for water quality is encouraged to be designed into the project to include green infrastructure or other flow inhibiting designs.
b. Appendix B contains data for pipe sizing.

(7) Detention requirements. All developments will be designed to incorporate detention with a storage volume sized for the 25 year storm and over-topping of a 100 year storm. Peak rate outflow control structure will meet the pre-development 2, 5, 10, 25 and 100 year storm as outlined in §14-206(6).

(8) Permanent Storm Water Management Plan (SWMP) requirements. The operators of non-exempt construction activities shall submit a SWMP for post construction permanent BMPs as part of the City's plan review and approval process. The SWMP shall include sufficient information to allow the Director to evaluate the environmental characteristics of the project site, the potential impacts of all proposed development on the site (both present and future) on the water resources, and the effectiveness and acceptability of the measures proposed for managing storm water generated at the project site. The operator may use the SWPPP as the SWMP provided the following information is included:
a. A topographical base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates:
i. Existing surface water drainage including streams, ponds, culverts, ditches, sink holes, wet lands and the type, size elevation etc., of the nearest

upstream and downstream drainage structures and/or storm water management facilities;

ii. Current land use including all existing structures, locations of utilities, roads and easements;

iii. All other existing significant natural and artificial features;

iv. Proposed land use with tabulation of the percentage of surface area to be adapted to various uses; drainage patterns; locations of utilities, roads and easements; and the limits of clearing and grading.

b. Proposed structural and non-structural BMPs;

c. A written description of the site plan and justification of proposed changes in natural conditions may also be required;

d. Hydrologic and hydraulic calculations for the pre-development and post-development conditions for a 2, 5, 10, 25, 50 and 100 year design storm. These calculations must show that the proposed storm water management measures are capable of controlling runoff from the site in compliance with this ordinance. Such calculations shall include:

i. A description of the design storm frequency, duration, and intensity where applicable;

ii. Time of concentration;

iii. Soil curve numbers or runoff coefficients including assumed soil moisture conditions;

iv. Peek runoff rates and total runoff volumes for each watershed area;

v. Infiltration rates, where applicable;

vi. Culvert, storm water sewer, ditch and/or other storm water conveyance capacities;

vii. Flow velocities;

viii. Data on the increase in rate and volume of runoff for a design storm; and

ix. Documentation of sources for all computations methods and field test results.

e. A soils report if a storm water management control measure depends on the hydrologic properties of soils (e.g. infiltration basins). The soils report shall be based on on-site boring logs or soil pit profiles and soil survey reports. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

f. Detailed maintenance and repair procedures for permanent storm water management facilities (see §14-206(9)).

Changes to post-construction permanent BMPs after plan review and approval shall be submitted to the Director for approval.

(9) Maintenance and repair plan. The design and planning of all permanent storm water management facilities shall include detailed maintenance and repair procedures to ensure their continued performance. These plans shall identify the parts or components of a storm water management facility that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan. Approved maintenance and repair plans shall be recorded in the Shelby County Register's office and shall act as a property deed restriction to ensure maintenance and repair responsibilities are carried out in perpetuity.

(10) Construction plans. Proposed plans for construction shall be stamped by a professional engineer licensed in the State of Tennessee and submitted as part of the City's plan review and approval process. The plans shall include all proposed improvements or modifications to the existing or new storm water infrastructure, erosion prevention and sediment control practices and other related improvements or modifications.

a. The City encourages regional watershed management practices and facilities. These practices will be encouraged in order to replace or reduce the implementation of on-site storm water management facilities.
b. Each individual project shall be evaluated for consistency with the adopted watershed master plan, when available, for the major watershed or watersheds within which the project site is located. The individual project evaluation will determine if proposed storm water management practices can adequately serve the property and limit impacts to downstream public and private properties. The presence of a regional facility(s) will be considered in determining the extent to which peak discharge and/or quality controls will be necessary.
c. In the absence of such a storm water master plan, a system of uniform requirements shall be applied to each individual project site. In general, these uniform requirements may be based on the criteria that storm water discharges from new development and redevelopment sites are to be managed such that post-development peak discharge does not exceed the pre-development peak discharge at the site (see §14-206(6) & (7)).
d. Minimum development may be permitted in the floodplain; however, the developer may be required by the Director to demonstrate "no adverse impact" on upstream or downstream facilities, uses, residences, or related structures. All fill volume permitted in the floodplain shall be offset by an equal volume excavated from the floodplain resulting in a balanced displacement of flood water storage. If substantial fill alteration is required, the Director may require a "no rise" certification.
e. Under no circumstances shall a site be graded or drained in such a way as to increase surface runoff to sinkholes, dry wells, or drainage wells.
f. Development of properties containing existing on-site storm water management facilities may be permitted, at the discretion of the Director, provided the property and downstream public and private properties, infrastructure or waters of the state are adequately protected from adverse storm water impacts.
g. Soil bioengineering, green and other soft slope and stream bank stabilization methods are encouraged. The use of greenway right-of-way for appropriate properties is encouraged along all waters of the state.
h. The City shall require the set aside of land along all waters of the state (greenbelt) as land development occurs. A permanent waterway buffer shall be applied as specified in Appendix A.

(11) Construction activities. It shall be unlawful for any person to permit any discharge of storm water from a construction activity as defined in §14-203 without a TNCGP or an individual NPDES permit. Erosion or sedimentation, or transport of other pollutants or forms of pollution, due to various land development activities must be controlled. All construction activities shall be in compliance with applicable permit requirements, federal, state and/or local, and all applicable requirements under this chapter. Additionally:

a. No earth disturbing activities shall be performed at a construction activity until:
   i. A NOC has been received from TDEC. A copy of the NOC shall be provided to the Manager;
   ii. All appropriate permits have been obtained;
   iii. Construction plans have been approved by the Director. Building plans will require approval by the Director of Code Enforcement;
   iv. Appropriate erosion prevention and sediment control BMPs, consistent with those described in the BMP manuals referenced in §14-206(1) and identified in the site's approved SWPPP, are in place; and
   v. A pre-construction meeting has been conducted.

b. Operators shall control wastes such as but not limited to discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site to avoid adverse impacts on water quality;
c. The Manager may stop or cause to have stopped construction or administer other enforcement actions as defined in this chapter on properties that do not have adequate erosion prevention and sedimentation control measures in place or properly maintained.
d. In activities that have been released from the development phase to the building phase, any changes in the development phase grading of more than two (2) feet (cut or fill) shall require a lot specific grading and drainage plan to show how the owner plans to accommodate drainage to or from adjacent lots. The Manager is empowered to stop or cause to be stopped any work on the lot until such time as a grading and drainage plan is submitted and approved by the Director.
e. After construction activities are complete, operators obtaining coverage under the TNCGP or an individual NPDES permit shall submit a Notice of Termination (NOT) to TDEC as specified in section 8 of the TNCGP. The Director is hereby empowered to retain or cause to be retained bonds, letters of credits, withholding of use and occupancy permits or other sureties as the Director deems appropriate until NOT acceptance by TDEC. Operators shall provide a copy of the approved NOT to the Manager.

14-207. Operation, maintenance and inspection of permanent storm water management facilities.

(1) As-built plans. All operators shall submit as-built plans for all permanent storm water management structures after final construction is completed to the City's Department of Engineering and Utilities. The plans must show the final flow line elevations, slopes, locations and/or design specifications for all storm water management facilities, as applicable for the facility, and must bear the seal of a registered professional engineer licensed to practice in the State of Tennessee. The registered professional shall certify that the facilities have been constructed in substantial and essential conformance to the design plan. The Director is hereby empowered to retain or cause to be retained bonds, letters of credits, withholding of use and occupancy permits or other sureties as the Director deems appropriate until proper as-built plans have been delivered.
(2) Erosion control phasing plan and stabilization requirements. Any area of land from which the natural vegetative cover has been either partially or wholly cleared by a construction activity shall be stabilized. Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased.
   a. Temporary or permanent soil stabilization at the construction site (or a phase of the project) must be completed not later than 15 days after the construction activity in that portion of the site has temporarily or permanently ceased. Natural or created slopes three to one (3 to 1) or steeper shall be temporarily stabilized not later than seven (7) days after construction activity on the slope has temporarily or permanently ceased. In the following situations, temporary stabilization measures are not required:
      i. where the initiation of stabilization measures is precluded by snow cover or frozen ground conditions or adverse soggy ground conditions, stabilization measures shall be initiated as soon as practicable; or
      ii. where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 15 days or seven (7) days for slopes three to one (3 to 1) or steeper.

b. Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable. The City's Standard Specifications contains grass seed mix and planting schedules. Unpacked gravel containing fines (silt and clay sized particles) or crusher runs will not be considered a non-eroding surface. Slopes three to one (3 to1) or steeper shall be solid sodded.

c. The following criteria shall apply to re-vegetation efforts:

i. Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.

ii. Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.

iii. Any area of re-vegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following re-vegetation. Re-vegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

(3) Right of access. The owner(s) shall maintain a perpetual right of access for inspection and emergency access by the City. The City has the right, but not the duty, to enter premises for inspection and emergency repairs.

(4) Inspection of storm water management facilities. Periodic inspections of facilities shall be performed, documented, and reported in accordance with this chapter, as detailed in §14-208.

(5) Records of installation and maintenance activities. Parties responsible for the operation and maintenance of a storm water management facility shall make records of the installation of the storm water facility, and of all maintenance and repairs to the facility, and shall retain the records for at least three (3) years. These records shall be made available to the City during inspection of the facility and at other reasonable times upon request.

(6) Infrastructure maintenance. It shall be the responsibility of the property owner of record for the maintenance of storm water infrastructure. Maintenance of storm water infrastructure consists of a minimum but is not limited to the following items as they apply to the specific storm water facility: outlet cleaning, mowing, herbicide spraying, litter control, removal of sediment from basin and outlet structures, repair of drainage structures, and other items that may be included in the facilities maintenance and repair plan. All such activities will be conducted in an environmentally sound manner and consistent with applicable codes, rules, and/or standards. No modifications shall be made to open ditches or other wet weather conveyances without coordination with the Director. All storm water management control facilities proposed by the owners and approved by the Director for dedication as a public facility shall be maintained by the owner until such time as the Director accepts the facilities. Upon acceptance, the facilities shall be publicly owned and /or maintained.

(7) Maintenance documents. Maintenance requirements for new privately owned permanent storm water management facilities may also be prescribed by a site-specific document between the owner or operator and the City. This document shall be based on an approved site design, a SWPPP, an inspection program (see §14-208), a long-term maintenance plan to include the requirements listed in §14-207(6), an emergency repair plan, easements, and proof or surety of financial responsibility. Approved maintenance documents shall be recorded in the Shelby County Register's office and shall act as a property deed restriction to ensure maintenance and repair responsibilities are carried out in perpetuity.

(8) Failure to meet or maintain design or maintenance standards. If a responsible party fails or refuses to meet the design or maintenance standards required for storm water facilities under this chapter, the City, after reasonable notice, may correct a violation of the design standards or maintenance needs by performing all necessary work to place the facility in proper working condition. In the event that the storm water management facility becomes a danger to public safety or public health, the City shall notify in writing the party responsible for maintenance of the storm water management facility. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the facility in an approved manner. In the event that corrective action is not undertaken within that time, the City may take necessary corrective action. The cost of any action by the City under this section shall be charged to the responsible party. Additionally, the Director may assess penalties as detailed in §14-211. Such an assessment will be used for cost recovery, to abate damages, and to restore impacted areas.

14-208. Inspection of storm water management facilities.

(1) On-site storm water management facilities maintenance document. For new construction where the storm water facility is located on property that is subject to a development agreement, and the development agreement provides for a permanent storm water maintenance document that runs with the land, the owners of property must execute a document that shall operate as a deed restriction binding on the current property owners and all subsequent property owners and their lessees and assigns, including but not limited to, homeowner associations or other groups or entities. The document shall:
   a. Assign responsibility for the maintenance and repair of the storm water facility to the owners of the property upon which the facility is located and be recorded as such on the plat for the property by appropriate notation.
   b. Provide that the minimum maintenance and repair needs include, but are not limited to: the removal of silt, litter and other debris, the cutting of grass, cutting and vegetation removal, and the replacement of landscape vegetation, in detention and retention basins, and inlets and drainage pipes and any other storm water facilities. It shall also provide that the property owners shall be responsible for additional maintenance and repair needs consistent with the needs and standards outlined in the MS4 BMP manuals listed in §14-206 and the approved maintenance and repair plan as appropriate.
   c. Provide that maintenance needs must be addressed in a timely manner, on a schedule to be determined by the Manager.
   d. Provide that if the property is not maintained or repaired within the prescribed schedule, the City shall perform the maintenance and repair at its expense, and bill the same to the development owner. The maintenance document shall also provide that the City's cost of performing the maintenance shall be a lien against each lot in the development.

(2) Existing locations – no maintenance document. The City may, to the extent authorized by state and federal law, enter and inspect private property for the purpose of determining if there are illicit non-storm water discharges, and to establish inspection programs to verify that all storm water management facilities are functioning within design limits. The applicable portions of §14-209 shall apply.
   a. Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants or pollutants or with discharges of a type which are more likely than the typical discharge to

cause violations of the City's NPDES storm water permit; and joint inspections with other agencies inspecting under environmental or safety laws.

b. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in drainage control facilities; and evaluating the condition of drainage control facilities and other BMPs.

c. The Manager shall, in writing, notify the owners of existing locations and developments of specific drainage, erosion or sediment problems affecting or caused by such locations and developments, and the specific actions required to correct those problems. The notice shall also specify a reasonable time for compliance. Discharges from existing BMPs that have not been maintained and/or inspected in accordance with this ordinance shall be regarded as illicit.

(3) Requirements for all existing locations and ongoing developments. The following requirements shall apply to all locations and development at which land disturbing activities have occurred previous to the enactment of this ordinance:

a. Denuded areas must be vegetated or covered under the standards and guidelines specified in §14-207 and on a schedule acceptable to the Manager.

b. Cuts and slopes must be properly covered with appropriate vegetation and/or retaining walls constructed.

c. Drainage ways shall be properly covered in vegetation or secured with rip-rap, channel lining, etc., to prevent erosion.

d. Trash, junk, rubbish, etc. shall be cleared from drainage ways.

e. Storm water runoff shall be controlled to the maximum extent practicable to prevent its pollution. Such control measures may include, but are not limited to, the following:

i. Ponds such as detention ponds, extended detention ponds, retention ponds and other alternate storage methods.

ii. Constructed wetlands.

iii. Infiltration systems such as infiltration/percolation trenches, infiltration basins, drainage (recharge) wells, and porous pavements.

iv. Filtering systems such as catch basin inserts/media filters, sand filters, filter/absorption beds, and filter and buffer strips.

v. Open channel such as swales and bio-swales.

(4) Corrections of problems subject to appeal. Corrective measures imposed by the Manager under this section are subject to appeal under §14-212 of this chapter.

14-209. Monitoring and inspection.

(1) Monitoring. The Manager shall periodically monitor compliance of the storm water NPDES permit holder.

(2) Detection of illicit connections and improper disposal. The Manager shall take appropriate steps to detect and eliminate illicit connections to the MS4, including the adoption of programs to identify illicit discharges and their source or sources and provide public education, public information and other appropriate activities to facilitate the proper management and disposal of used oil, toxic materials and household hazardous waste.

(3) Inspections.

a. The Manager or a municipal inspector, bearing proper credentials and identification, may enter properties for inspections, investigations, monitoring, observation, measurement, enforcement, sampling and testing, to effectuate the provisions of this chapter and/or the NPDES storm water permit. The Manager or the municipal inspector shall duly notify the owner of said property or the representative on site and the inspection shall be conducted at reasonable times.

b. Upon refusal by any property owner to permit a municipal inspector to enter or continue an inspection, the inspector shall terminate the inspection or confine

the inspection to areas wherein no objection is raised. The inspector shall immediately report the refusal and the circumstances to the Manager.

c. In the event the Manager reasonably believes that discharges into the MS4 may cause an imminent and substantial threat to human health or the environment, an inspection may take place at any time and without notice to the owner of the property or a representative on site. The municipal inspector shall present proper credentials upon request by the owner or representative.

d. At any time during the conduct of an inspection or at such other times as the Manager or municipal inspector may request information from an owner or representative, the owner or representative may identify areas of the facility or establishment, material or processes which contains or may contain a trade secret. If the Manager or the municipal inspector has no clear and convincing reason to question such identification, the inspection report shall note that trade secret information has been omitted. To the extent practicable, the Manager shall protect all information that is designated as a trade secret by the owner or their representative.

14-210. Discharges from regulated industrial sources.

(1) Purpose. It is the purpose of this chapter to control storm water runoff from industrial sources in order to minimize to the maximum extent practicable, pollutants discharged from industrial sources into the MS4. This reduction may be achieved by a combination of management practices, control techniques, system design, engineering methods and plan review.

(2) Industry, defined. An industry is one defined as industry by EPA rule or subject to the Tennessee Multi-Sector Permit (TMSP) for Storm Water Discharges Associated with Industrial Activity.

(3) Right of inspection, defined. Right of inspection is defined is §14-209.

(4) Information required. The State of Tennessee utilizes a NOI for dischargers to obtain coverage under the general permit program for discharges associated with industrial activities. These documents are subject to change and amendment and therefore the user should obtain the latest versions directly from TDEC. These may be obtained at the state's web page. All industries subject to the TMSP and discharging into the MS4 shall maintain a copy of the SWPPP on the industrial site, available for inspection and copying at reasonable times by the Manager.

(5) SWPPP requirements. The SWPPP must follow, at a minimum, the outline of the plan listed in the Tennessee Multi-Sector Permit language or a facilities NPDES Storm Water Permit language, whichever is applicable.

(6) Sampling at industrial facilities.

a. Samples of storm water collected for compliance monitoring shall be representative of the discharge. Sampling locations will be those defined in the TMSP or a NPDES Permit. Sampling and analysis shall be in accordance with 40 CFR §122.21 and 40 CFR §136 and/or applicable permit language.

b. Samples that may be taken by the Manager for the purpose of determining compliance with the requirements of this chapter or rules adopted hereunder may be split with the discharger if requested before the time of sampling.

c. The Manager may require a storm water discharger to install and maintain, at the discharger's expense, a suitable manhole or sampling facility at the discharger's facility or suitable monitoring access to allow observation, sampling, and measurement of all storm water runoff being discharged into the MS4. Sampling manhole or access shall be constructed in accordance with plans approved by the Director and shall be designed so that flow measurement and sampling equipment can be installed. Access to the manhole or monitoring access shall be available to the Manager at all times.

(7) Reporting.

a. Any facility required to sample under either the TMSP or a NPDES storm water permit shall provide a copy of the monitoring report to the Manager.
b. The Manager may require reporting by dischargers of storm water runoff to the MS4, where a NPDES storm water permit is not required, to provide information. This information may include any data necessary to characterize the storm water discharge.

(8) Accidental discharges. In event of a significant spill as defined in definitions or any other discharge which could constitute a threat to human health or the environment, the owner or operator of the facility shall give notice to the Manager and the local field office of the TDEC as required by state and federal law following the accidental discharge.
   a. If an emergency response by governmental agencies is needed, the owner or operator should also call the Memphis and Shelby County Emergency Management Agency immediately to report the discharge. A written report must be provided to the Manager within five (5) days of the time the discharger becomes aware of the circumstances, unless this requirement is waived by the Manager for good cause shown on a case-by-case basis, containing the following particulars:
      i. A description of the discharge, including an estimate of volume.
      ii. The exact dates, times and duration of the discharge.
      iii. Steps being taken to eliminate and prevent recurrence of the discharge, including any planned modification to contingency, SWPPP or maintenance plans.
      iv. A site drawing should be rendered that shows the location of the spill on the impacted property, the direction of flow of the spill in regards to the topographical grade of the property, the impacted watercourse(s), and the property or properties adjacent to the spill site.
   b. The discharger shall take all reasonable steps to minimize any adverse impact to the MS4, including such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge. The interruption of business operations of the discharger shall not be a defense in an enforcement action necessary to maintain water quality and minimize any adverse impact that the discharge may cause.
   c. It shall be unlawful for any entity, whether an individual, residential, commercial or industrial, to fail to comply with the provisions of this section.

(9) Fraud and false statements. Any reports required by this chapter or rules adopted hereunder and any other documents required by the City to be submitted or maintained by the discharger shall be signed by a responsible corporate official and certified as accurate to the best of their personal knowledge after appropriate investigation. It shall be subject to the enforcement provisions of this chapter and any other applicable local and state laws and regulations pertaining to fraud and false statements. Additionally, the discharger shall be subject to the provisions of 18 USC §309 of the Clean Water Act, as amended, governing false statements and responsible corporate officials.

14-211. Enforcement Response and Abatement. Whenever the manger finds any permittee or person discharging storm water, or other pollutants into the MS4 or otherwise has violated or is violating this chapter, conditions of a storm water permit, or order issued hereunder, the Manager may use enforcement response and abatement actions specified herein to achieve compliance. Although enforcement and abatement actions should be progressively applied until compliance is achieved, enforcement actions may be administered in any sequence as the Manager deems appropriate for the violation. If the Manager deems it necessary, a complaint may be filed with the Commissioner of TDEC pursuant to TCA §69-3-118.

(1) Administrative remedies. The enforcement remedies enumerated herein shall be applicable to all sections of this chapter.

a. Verbal Warnings. Municipal inspectors are hereby empowered to administer verbal warnings, of which shall be considered as being the same as issued by the Manager. A verbal warning may be given at the discretion of the inspector when it appears the condition can be corrected by the violator within a reasonable time, which time shall be approved by the inspector. A verbal warning may be issued upon the first instance of a violation. In most cases, it isn't the intention of the violator to commit an offense but they are unaware of the ordinance requirements. A verbal warning acts, in this instance, as an educational tool. Violations encountered during routine inspections of construction activities are normally handled verbally. When a verbal warning is utilized, the warning shall specify the nature of the violation and the required corrective action, with deadlines for taking such actions. A verbal warning in no way relieves the discharger of liability for any violations occurring before or after receipt of the warning.

b. Written Notices. Written notices shall stipulate the nature of the violation and the required corrective action, with deadlines for taking such actions. Written notices shall normally be used starting with the least severe and progressively working to the most severe. Written notices shall be in the following forms, listed from least severe to most severe:

i. *Notice of non-compliance (NON)*. Municipal inspectors are hereby empowered to administer NONs, of which shall be considered as being the same as issued by the Manager. A NON is a written follow-up to a verbal warning and is initiated when corrective actions have not been accomplished by the deadline provided in the verbal warning. A NON is also utilized to report violations encountered during construction activity compliance inspections. A NON in no way relieves the discharger of liability for any violations occurring before or after receipt of the NON.

ii. *Notice of violation (NOV)*. A NOV is a follow-up to a NON and is initiated when corrective actions have not been accomplished by the deadline provided in the NON. This notice shall be by personal service, or registered or certified mail with return receipt. Within ten (10) days of the receipt date of the notice or by the date specified in the NOV, the recipient of this NOV shall provide the Manager with a written explanation for the violation. The response shall also include a plan for satisfactory correction and prevention thereof, to include specified required actions and milestones for completion. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the NOV.

iii. *Stop work order*. A stop work order is a follow-up to a NOV and is initiated when corrective actions have not been accomplished by the deadline provided in the NOV. Additionally, when the Manager finds that any person has violated or continues to violate this chapter or any permit or order issued hereunder and such action or inaction has or may have the potential for immediate and significant adverse impact on the MS4 or the storm water discharges to it, the Manager may issue an order to cease and desist all such violations immediately and direct those persons in non-compliance to:

1. Comply forthwith; or
2. Take such appropriate remedial or preventable action as may be needed to properly address a continuing or threatened violation, including halting operations and terminating the discharge.

This notice shall be by personal service, or registered or certified mail with return receipt. Within ten (10) days of the receipt date of the notice,

the recipient of this stop work order shall provide the Manager with a written explanation for the violation. The response shall also include a plan for satisfactory correction and prevention thereof, to include specified required actions and milestones for completion. Submission of this plan in no way relieves the discharger of liability for any violations occurring before or after receipt of the stop work order. Anyone receiving a stop work order shall receive an expedited review and appeal of such order upon written request for the appeal. The appeal must meet the requirements specified in §14-212 and be made within two (2) business days of receiving such order.

iv. *Show Cause Notice*. A show cause notice is a follow-up to a stop work order, is initiated when corrective actions have not been accomplished by the deadline provided in the stop work order, and is normally the last written notice before administrative and/or civil penalties are assessed. Additionally, the Manager may order any person who causes or contributes, or may be a cause or contributor, to a violation of a storm water permit or order issued hereunder to show cause why a proposed enforcement action should not be taken. The show cause notice shall be served on the person, specifying the time and place of the meeting, the proposed enforcement action and the reason for such action, and a request that the person show cause why this proposed enforcement action not be taken. This notice shall be by personal service or registered or certified mail with return receipt and postmarked at least ten (10) days prior to the meeting. A show cause notice in no way relieves the discharger of liability for any violations occurring before or after receipt of the notice.

c. Consent agreement. The Manager is hereby empowered to enter into consent agreements, assurances of voluntary compliance, or other similar documents establishing an agreement with the person or persons responsible for the non-compliance. Such agreements will include specific action to be taken by the permittee or person discharging storm water to correct the non-compliance within a time period specified by the agreements. Consent agreements shall have the same force and effect as compliance orders issued pursuant to §14-211(1)(d).

d. Compliance order. When the Manager finds that any person has violated or continues to violate this chapter or any other order issued hereunder, he may issue an order to the violator directing that, following a specified time period, adequate structures and/or devices be installed or procedures implemented and properly operated or followed. Orders may also contain such other requirements as might be reasonably, necessary and appropriate to address the non-compliance, including the construction of appropriate structures, installation of devices, self-monitoring and related management practices. Compliance orders are normally a component of the NOV or stop work order.

e. Withholding of approvals or other authorizations. The Director is hereby empowered to withhold or cause to be withheld any permits, plat recordings, bond releases or any other instrument that would normally be issued to the violator until such time as the violations cease. Withholding may be performed in conjunction with other enforcement actions as deemed appropriate by the Manager.

(2) Civil and administrative penalties.

a. Any person who performs any of the following acts or omissions shall be subject to a civil or administrative penalty of not less than fifty dollars ($50.00) or more than five thousand dollars ($5,000.00) per day for each day during which the act or omission continues to occur. Each day a violation is allowed to continue constitutes a separate offence (TCA §68-221-1106).

i. Violates an effluent standard or limitation or water quality standard established under this chapter or established by TCA Title 69, Chapter 3, Part 1 (State of Tennessee Water Quality Control Act).
ii. Fails to obtain any required permit;
iii. Violates the terms and conditions of such required permit in subsection ii above;
iv. Fails to allow or perform an entry, inspection, monitoring or reporting requirement;
v. Violates a final determination or order of the Manager or the Storm Water Board of Appeals; or
vi. Violates any provision of this chapter.

b. Attachment 1 provides initial assessments for violations of this ordinance that may be assessed by the Director. Chronic violators may be assessed up to the maximum amount permitted by TCA §68-221-1106. Additionally, the Director, with consent of the Mayor, may initiate civil proceedings in any court of competent jurisdiction seeking monetary damages for damages caused to the MS4 by any person, and to seek injunctive or other equitable relief to enforce compliance, with any lawful orders of the Manager.

(3) Unlawful acts, misdemeanor. It shall be unlawful for any person to knowingly:

a. Violate a provision of this chapter;
b. Violate the provisions of any permit issued pursuant to this chapter;
c. Fail or refuse to comply with lawful notice to abate issued by the Manager, which has not been timely appealed to the Storm Water Appeals Board within the time specified by such notice; or
d. Violate any lawful order of the Manager within the time allowed by such order.

Such person shall be guilty of a misdemeanor; and each day of such violation or refusal to comply shall be deemed a separate offense and punishable accordingly. Any person found to be in violation of the provisions of this chapter shall be punished by a fine as set out in Part II, Chapter 1, Section 1-4, Code of Shelby County. Upon learning of such act or omission, the Manager may issue a city ordinance citation charging the person, firm, or entity with violating one (1) or more provisions of this chapter or permit issued there under, criminal violation of this chapter may also be the basis for injunctive relief, with such actions being brought and enforced through the Shelby County General Sessions Environmental Court.

(4) Processing a violation.

a. The Director may issue an assessment against any person or permittee responsible for the violation.
b. The Director may consider the following factors when assessing an administrative or civil penalty (TCA §68-221-1106(b)):
i. The harm done to the public health or environment;
ii. Whether the assessment or civil penalty imposed will be an appropriate economic deterrent to the illegal activity by the violator or others in the regulated community;
iii. The economic benefit gained by the violator;
iv. The amount of effort put forth by the violator to remedy the violation and/or the effectiveness of those remedies;
v. Any unusual or extraordinary enforcement costs incurred by the City;
vi. The amount of penalty established by ordinance or resolution for specific categories of violations (see Attachment 1);
vii. Cause of discharge or violation;
viii. The severity of the discharge and its effect on the MS4;
ix. The technical and economic reasonableness of reducing or eliminating the discharge.
x. Any equities of the situation which outweigh the benefit of imposing any penalty or damage assessment.

c. The Director may also assess damages proximately caused by the violator to the City which may include any reasonable expenses incurred in investigating and enforcing violations or any other actual damages caused including but not limited to costs involved in rectifying damages, costs of the City's maintenance of storm water facilities when the user of such facilities fails to maintain them as required by this chapter and costs (direct and indirect) and attorney's fees incurred as a result of illegal activities.

d. Any person against whom an assessment or order has been issued may secure a review of such assessment or order by filing with the Manager a written appeal setting forth the specific legal and technical grounds and reasons for his objections and asking for a hearing in the matter involved before the Storm Water Board of Appeals. Applications for appeals must meet the requirements specified in §14-212. If an appeal for review of the assessment, penalty and/or order is not filed within thirty (30) days after the date of the assessment, penalty and/or order is served, the violator shall be deemed to have consented to the assessment and it shall become final.

e. Whenever any assessment or penalty has become final because of a person's failure to appeal, the Director may apply to the appropriate court for judgment and seek execution of such judgment and the court, in such proceedings, shall treat a failure to appeal such assessment as a confession of judgment in the amount of the assessment (TCA §68-221-1106(e)).

f. Any civil penalty assessed to a violator pursuant to this section may be in addition to any civil penalty assessed by the Commissioner of TDEC in accordance with TCA §69-3-115; however, the sum of penalties imposed by this section and by the TCA §69-3-115 shall not exceed ten thousand dollars ($10,000.00) per day for each day during which the act or omission continues or occurs.

(5) Appeal judicial proceedings and relief. The Manager may initiate proceedings in any court of competent jurisdiction against any person who has or is about to:

a. Violate the provisions of this chapter;
b. Violate the provisions of any permit issued pursuant to this chapter;
c. Fail or refuse to comply with any lawful order issued by the Manager that has not been timely appealed within the time allowed by this chapter;
d. Violates any lawful order of the Manager within the time allowed by such order.

Any person who shall commit any act declared unlawful under this chapter shall be guilty of a misdemeanor, and each day of such violation or failure shall be deemed a separate offense and punishable accordingly.

(6) Damages, disposition of funds. All damages collected under the provisions of this chapter and civil penalties collected under the provisions of §14-211(4) following the adjustment for the expenses incurred in making such collections shall be allocated and appropriated to the Storm Water Management Program of the City of Bartlett.

(7) Records retention. All dischargers subject to this chapter shall maintain and preserve for no fewer than five (5) years, all records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling, and chemical analysis made by or in behalf of the discharger in connection with its discharge. All records which pertain to matters which are subject of any enforcement or litigation activities brought by the City pursuant hereto shall be retained and preserved by the discharger until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

14-212. Storm Water Board of Appeals. It shall be the duty of the Storm Water Board of Appeals (the Board) to hear and decide any appeal of any decision, order or interpretation by the Director or Manger whose duty it is to enforce the ordinance from

which an aggrieved seeks relief, provided that a written application for appeal is filed with the Manager within thirty (30) days after the decision, order or interpretation was served.

(1) Application for Appeal. An application for appeal shall be based on a claim that the true intent of this chapter or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this chapter do not fully apply, or the requirements of this chapter are adequately satisfied by other means.

(2) Stays of enforcement. Appeals of orders and penalties (other than emergency orders) shall stay the enforcement of the order or a penalty until the appeal is heard by the Board.

(3) Membership. The Board shall consist of a minimum of five (5) members. At least one member will be an elected official of the Board of Mayor and Alderman, at least two members will be professionals or contractors and at least two members shall be citizens. The Board shall be appointed by the Mayor and shall serve staggered and overlapping terms of four (4) years. All members are eligible for multiple and/or consecutive terms of appointment.

   a. Chairman. The Board shall annually select one of its members to serve as Chairman. The Chairman shall preside at all meetings of the Board. The Chairman shall represent the Board at public affairs and shall maintain the dignity and efficiency of the Board in all possible ways. The Chairman shall also prepare, or cause to be prepared, any information helpful in acquainting new members with the procedures and/or operations of the Board.

   b. Disqualification of member. A member shall not hear an appeal in which that member has a personal, professional or financial interest.

   c. Resignation. A member may resign at any time by providing written notice of their intent to do so to the Board Chairman and the Mayor.

   d. Vacancies. The Mayor shall have the authority to remove any member of the Board, with or without cause. The Mayor shall appoint new members to fill any vacancy on the Board and such appointee shall serve the remaining term of the member whose position has been vacated.

   e. Secretary. The Mayor shall designate a qualified City staff member to serve as Secretary to the Board. The Secretary shall file a detailed report of all proceedings in the Department of Engineering and Utilities. The secretary is not a member of the Board.

   f. Compensation of members. Appointed members shall serve without compensation.

(4) Notice of meeting. The Board shall meet upon notice from the Chairman, within thirty (30) days of the filling of an appeal.

(5) Open hearings. All hearings before the Board shall be open to the public. The appellant, the appellant's representative, the storm water official and any person whose interests are affected shall be given the opportunity to be heard. A quorum shall consist of not less than two-thirds (2/3) of the Board membership.

(6) Board decision. The Board shall affirm, modify or reverse the decision of the storm water official. Modifications and reversals require a majority vote of those present. Modifications may increase the amount of penalties assessed but shall not reduce any penalties assessed to less than fifty dollars ($50.00).

   a. The decision of the Board shall be recorded. Copies shall be furnished to the appellant and to the Manager.

   b. The Manager shall take immediate action in accordance with the decision of the Board.

WATERSHED MANAGEMENT MANUAL

All appendices are part of the City of Bartlett Watershed Management Manual and as such are subject to change by the Director as may be necessary to comply with changing federal, state and local laws or regulations or changes required to alleviate or mitigate impacts to the quantity and quality of the waters within the watershed.

Index of Appendices

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A. Waterway Buffers

1. Any drainage ditch or drainage way that is classified as a waters of the state stream on the USGS Quad maps or as waters of the state by TDEC shall have the permanent buffer dedicated to the City of Bartlett as detailed below.

2. The City of Bartlett has developed a map that shows the proposed greenway pedestrian trail along the various streams or waters of the state. These greenway streams shown on this map shall require dedication to the City of Bartlett, a minimum of 150 feet each side of the top bank. The attached map (drawing D) shows greenways. All 300 feet can get density credit. See drawing C.

3. Any waters of the state that is not shown on the City of Bartlett Greenway map (drawing D) shall require a dedication to the City of Bartlett of 60 feet from the top of the surveyed ditch banks on each side. The developer of residential property shall not receive any credit for the dedication of this 60 feet, as this is a TDEC requirement.

4. The developer of residential or commercial property shall also dedicate any portion of the existing channel located on their property.

5. The developer shall be required to run a HEC or another hydrological program appropriate for the drainage basin and with the drainage basin being fully developed as projected by the city master plan to determine the 100 year flow and the height of the overland flow of water with the drainage ditch being totally blocked.

6. This hydrological study will help to determine if the proposed dedication is appropriate and to determine the amount of fill on the lots that might be required by the developer to provide a minimum elevation along the back property line at the 100 year water surface elevation (channel fully blocked). Cross sections at upstream and downstream locations and at 500 feet intervals will be required to determine flow line slope and over bank slope.

ALTERNATE

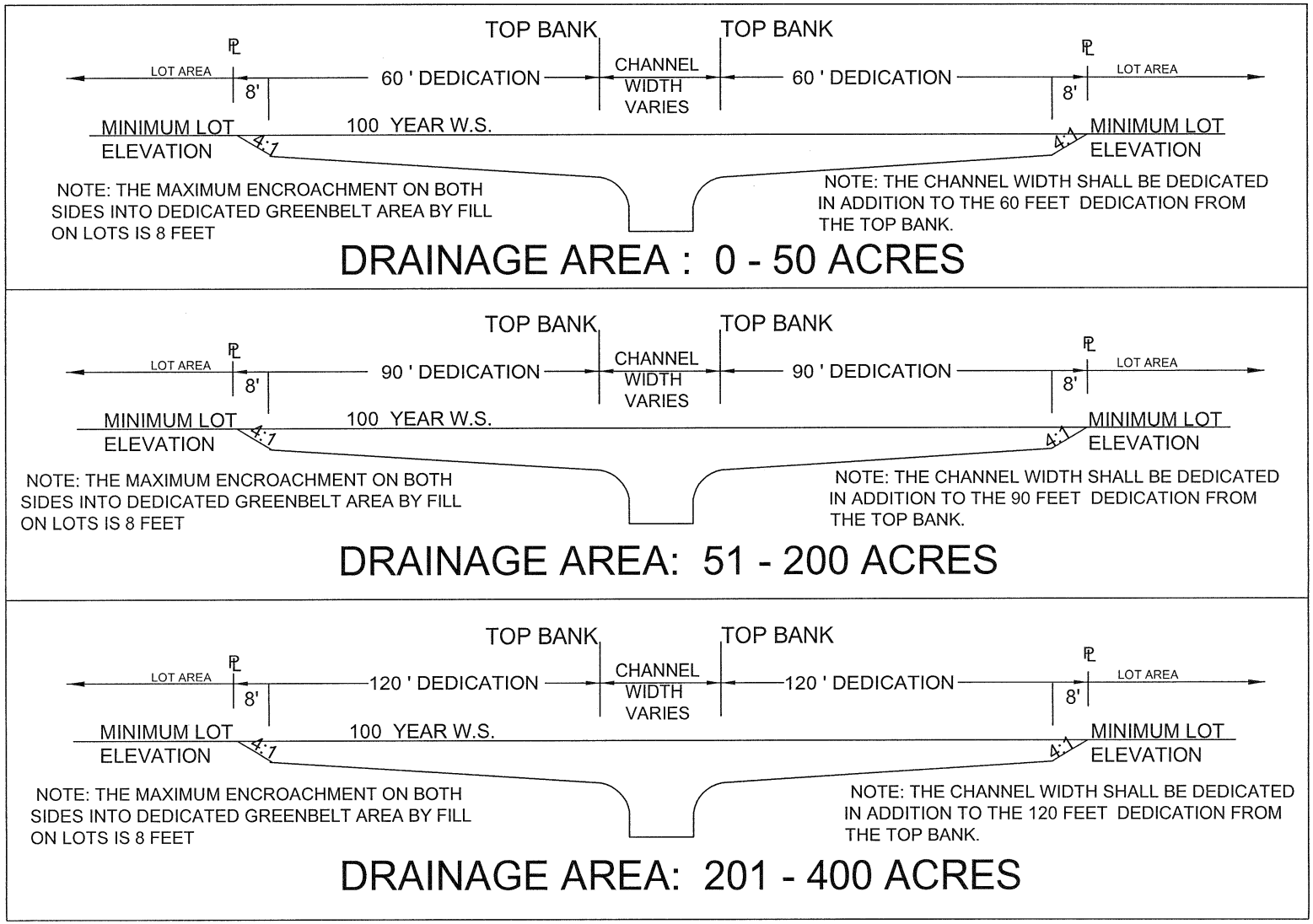
The developer may dedicate some additional greenbelt in order to reduce the amount of fill required on the lots and to provide a good passive path for the flow of water along the channel.

Any area of dedication for greenbelt to the City of Bartlett over the minimum required dedication of 60 feet from the top of the stream bank can be used to give the developer an increase to the density of the development up to the amount allowed by zoning.

The commercial or industrial area lots along the greenway can use this additional dedication to apply against the 35% green set aside requirement, reducing it down to no less than 20%, on the balance of the lot or as approved by the Planning Commission.

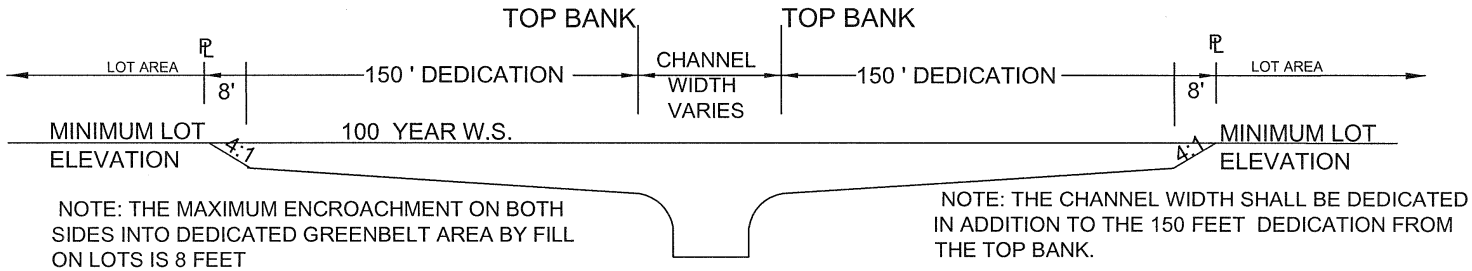
The greenbelt dedication and the stream bands buffer shall be as follows:

1. Less than 50 acres drainage area – 60 feet from the top of the stream banks, each side. See Drawing A.
2. Between 51 acres to 200 acres drainage area – add 30 feet to each side for a total of 90 feet from the top of banks, each side. See Drawing A.
3. Between 201 acres to 400 acres drainage area – add 60 feet to each side for a total of 120 feet from the top of the banks, each side. See Drawing A.
4. Between 401 acres to 500 acres drainage area – add 90 feet to each side for a total of 150 feet from the top of the bank, each side. See Drawing B.
5. Greater than 501 acres of drainage area the minimum width of greenbelt dedication shall be 150 feet from the top of bank, each side, along with the HEC run or hydrological study to determine the 100 year fully developed flow and the height of the fill required along the back of the lots shall be a minimum set to this calculated 100 year flow. See Drawing B.
6. Along any FEMA studied stream, the flood way and the floodplain may be dedicated to the City of Bartlett. Any filling within the floodplain shall be offset with the same value of excavation in the floodplain to offset the impact of the fill resulting in a no rise situation. This shall be approved by the floodplain administer.
7. Any lakes or wet lands along the greenways will have at least a 25 foot set back from the high water location.
8. If the developer so chooses, he can provide the City an acceptable plan to stabilize the channel and go through the ARAP process with TDEC for work on the channel. This will allow for a reduction in width to be determined by the Director but in no case can it be less than 60 feet either side of the top bank.
9. Lot grades on FEMA studied streams shall be a minimum of one (1) foot above the 100 year flood elevation.



DRAWING "A" N. T. S.

THIS PAGE INTENTIONALLY LEFT BLANK



NOTE: THE MAXIMUM ENCROACHMENT ON BOTH SIDES INTO DEDICATED GREENBELT AREA BY FILL ON LOTS IS 8 FEET

NOTE: THE CHANNEL WIDTH SHALL BE DEDICATED IN ADDITION TO THE 150 FEET DEDICATION FROM THE TOP BANK.

DRAINAGE AREA: 401 - 500 ACRES

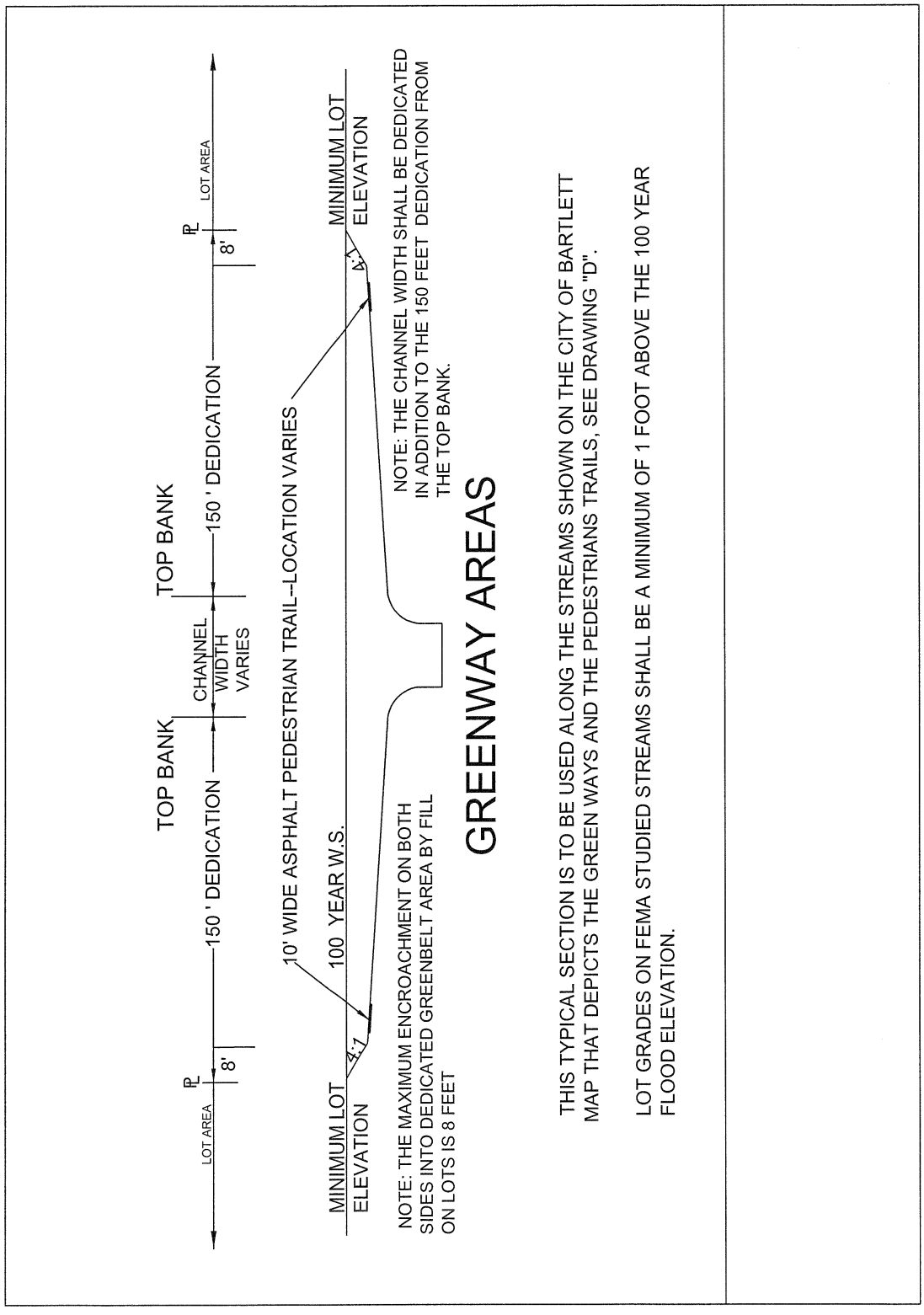
ALL DRAINAGE BASINS WITH GREATER THAN 501 ACRES WILL REQUIRE A MINIMUM WIDTH OF GREENBELT DEDICATION OF 150 FEET EACH SIDE OF THE TOP OF BANK, EACH SIDE, ALONG WITH THE HEC RUN OR HYDROLOGICAL STUDY TO DETERMINE THE 100 YEAR FULLY DEVELOPED FLOW AND WITH THE CHANNEL TOTALLY BLOCKED AND THE HEIGHT OF THE FILL REQUIRED ALONG THE BACK OF THE LOTS SHALL BE AS A MINIMUM SET TO THE CALCULATED 100 YEAR FLOW AND ELEVATION.

LOT GRADES ON FEMA STUDIED STREAMS SHALL BE A MINIMUM OF 1 FOOT ABOVE THE 100 YEAR FLOOD ELEVATION.

DRAINAGE AREA: GREATER THAN 501 ACRES

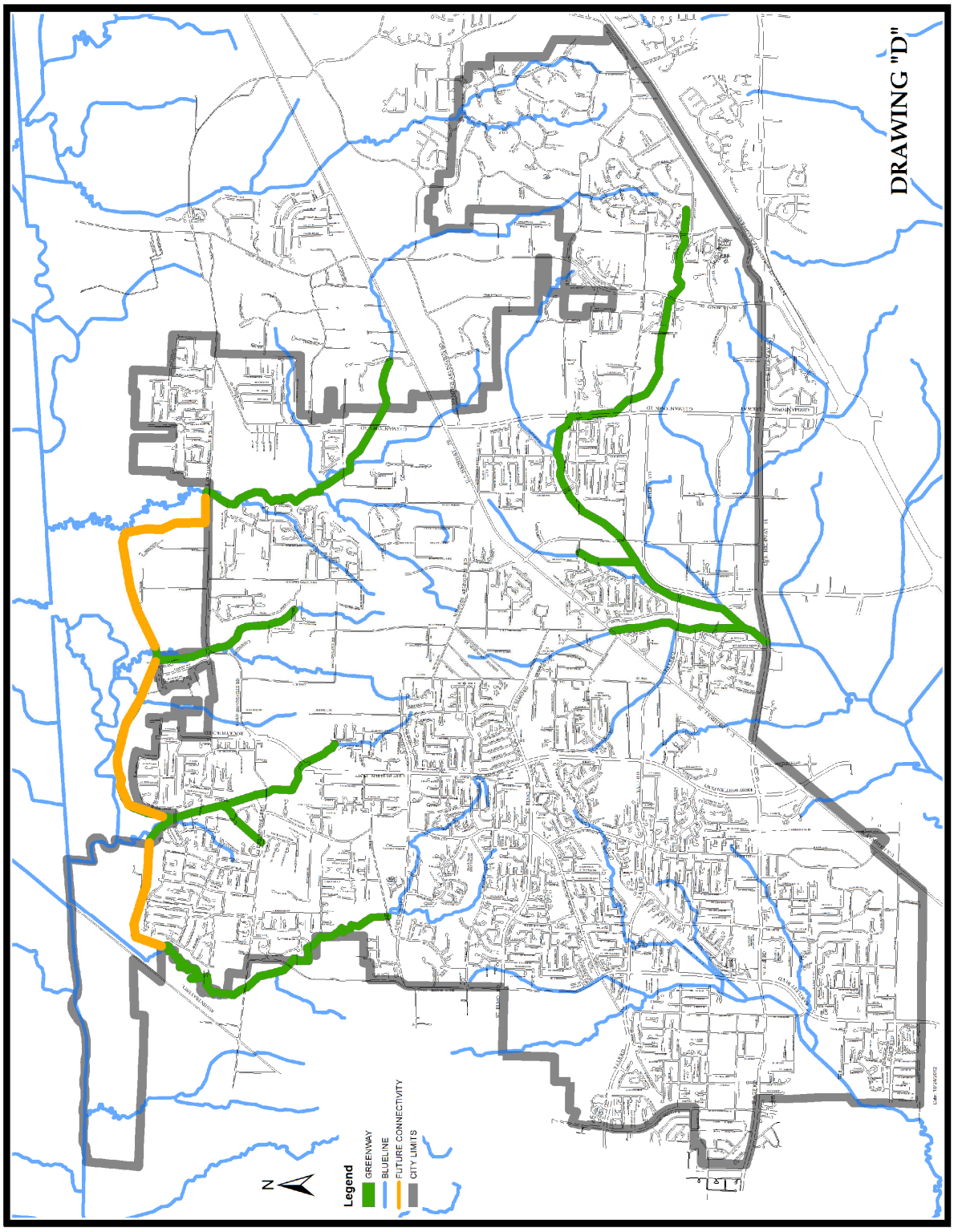
DRAWING "B" N. T. S.

THIS PAGE INTENTIONALLY LEFT BLANK


TOP BANK
TOP BANK
CHANNEL WIDTH VARIES
150 ' DEDICATION
150 ' DEDICATION
8'
8'
LOT AREA
LOT AREA
10' WIDE ASPHALT PEDESTRIAN TRAIL--LOCATION VARIES
100 YEAR W.S.
MINIMUM LOT ELEVATION
MINIMUM LOT ELEVATION
4:1
4:1
NOTE: THE MAXIMUM ENCROACHMENT ON BOTH SIDES INTO DEDICATED GREENBELT AREA BY FILL ON LOTS IS 8 FEET
NOTE: THE CHANNEL WIDTH SHALL BE DEDICATED IN ADDITION TO THE 150 FEET DEDICATION FROM THE TOP BANK.
GREENWAY AREAS
THIS TYPICAL SECTION IS TO BE USED ALONG THE STREAMS SHOWN ON THE CITY OF BARTLETT MAP THAT DEPICTS THE GREEN WAYS AND THE PEDESTRIANS TRAILS, SEE DRAWING "D".
LOT GRADES ON FEMA STUDIED STREAMS SHALL BE A MINIMUM OF 1 FOOT ABOVE THE 100 YEAR FLOOD ELEVATION.
DRAWING "C"
N. T. S.

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A. Waterway Buffers (continued)



THIS PAGE INTENTIONALLY LEFT BLANK

Appendix B. Pipe Sizing Chart

The attached pipe chart will be used as the basis for design of new drainage systems. This is the minimum standard and may be modified by the Director or design engineer when field conditions warrant changes for additional capacity.

DESIGN STANDARDS FOR RAINFALL RUNOFF CALCULATIONS

Utilizing the Rational Method in Computing Runoff Amounts Q=C x I x A

RESIDENTIAL		C = 0.525 Years Storm	
ACRES	Tc	i-25	CFS/Acre
1	5	8.0	3.5
2	6.37	7.6	3.5
5	10.22	6.4	3.2
10	13.02	5.8	2.9
20	16.60	5.25	2.6
30	19.13	5.00	2.5
40	21.15	4.75	2.4
50	22.87	4.60	2.3
75	26.36	4.25	2.1
100	29.15	4.04	2.0

OFFICE PARK/INDUSTRIAL		C = 0.75	Tr = 25 years
ACRES	Tc	i-25	CFS/Acre
1	5	8.0	5.0
2	5.46	7.8	5.0
5	7.68	7.1	5.0
10	9.99	6.5	4.9
20	13.03	5.8	4.3
30	15.42	5.6	4.2
40	17.56	5.25	3.9
50	19.64	4.9	3.7
75	22.63	4.6	3.5
100	25.03	4.4	3.3
125	27.06	4.25	3.2
150	28.85	4.15	3.1
175	30.45	4.0	3.0
200	31.90	3.9	2.9

Appendix B. Pipe Sizing Chart (continued)

COMMERCIAL		C = 0.82	Tr = 25 years
ACRES	Tc	i-25	CFS/Acre
1	5	8.0	6.0
2	5	8.0	6.0
5	7.07	7.3	6.0
10	9.28	6.7	5.5
20	12.02	6.0	4.9
30	14.10	5.72	4.7
40	15.90	5.4	4.4
50	17.55	5.2	4.3
75	20.23	4.8	3.9
100	22.36	4.6	3.8

INLET	CAPACITY
#10	3.00 CFS
3070	3.00 CFS
#11	6.50 CFS
#6-72	6.50 CFS
3 X 3	14 CFS

Attachment 1. Table of Initial Assessments

A. Illicit Discharges			
Violation	**Reference**		**Assessment**
Trash or Debris	§14-205(2)	< cubic yard	$150
		Cubic yard or greater	$300
Construction material	§14-205(2)	< cubic yard	$500
		Cubic yard or greater	$1000
Petroleum products	§14-205(2)		$1250
Antifreeze & other automotive products	§14-205(2)		$1250
Metals in either particulate or dissolved forms	§14-205(2)		$500
Flammable or explosive materials	§14-205(2)		$500
Radioactive material	§14-205(2)		$500
Batteries	§14-205(2)		$100
Acids, alkalis or bases	§14-205(2)		$100
Paints, stains, resins, lacquers or varnishes	§14-205(2)		$100
Degreasers and or solvents	§14-205(2)		$100
Drain cleaners	§14-205(2)		$100
Pesticides, herbicides or fertilizers	§14-205(2)		$200
Steam cleaning wastes	§14-205(2)		$100
Soaps, detergents or ammonia	§14-205(2)		$100
Swimming pool backwash to include chlorinated discharge	§14-205(2)		$50
Chlorine, bromine or other disinfectants	§14-205(2)		$100
Heated water	§14-205(2)		$50
Animal waste from commercial or feeder lot operations	§14-205(2)		$1000
Sanitary or industrial waste water	§14-205(2)		$1000
Recreational vehicle waste	§14-205(2)		$1000
Animal carcasses	§14-205(2)		$500
Food wastes	§14-205(2)		$100
Medical wastes	§14-205(2)		$200
Collected lawn clippings, leaves, branches, bark and other fibrous material	§14-205(2)	< cubic yard	$150
		cubic yard or greater	$300
Collected silt, sediment or gravel	§14-205(2)	< cubic yard	$500
		cubic yard or greater	$1000
Dyes	§14-205(2)		$100
Chemicals not normally found in uncontaminated water	§14-205(2)		$1250
Any hazardous material or waste not listed	§14-205(2)		$5000
Washing of fresh concrete	§14-205(2)		$500
Junk motor vehicles	§14-205(2)		$2500

Attachment 1. Table of Initial Assessments (continued)

Liquid from solid wastes disposal containers	§14-205(2)		$100
Domestic animal waste	§14-205(2)		$50
Illicit Connection	§14-205(4)		$2500
Illegal Dumping	§14-205(7)		$2500
Failure to comply with compliance order	§14-211(1)(d)		$2500
B. Construction			
Violation	**Reference**		**Assessment**
Site graded or drained to increase surface runoff to sinkholes, dry wells or drainage wells	§14-206(10)(e)	< one acre	$2500
		One acre or greater	$5000
Failure to maintain buffer zones	§14-206(10)(h)	< one acre	$2500
		One acre or greater	$5000
Failure to obtain notice of coverage prior to construction start	§14-206(11)(a)	< one acre	$2500
		One acre or greater	$5000
Failure to comply with requirements of applicable permits	§14-206(11)	< one acre	$2500
		One acre or greater	$5000
Failure to obtain appropriate permits prior to construction start	§14-206(11)	< one acre	$2500
		One acre or greater	$5000
Failure to submit plans for review prior to construction start	§14-206(11)(a)	< one acre	$2500
		One acre or greater	$5000
Failure to install appropriate BMPs prior to construction start	§14-206(11)(a)	< one acre	$2500
		One acre or greater	$5000
Failure to conduct a pre-construction meeting with the City prior to construction start	§14-206(11)(a)	< one acre	$1250
		One acre or greater	$2500
Failure to control wastes	§14-206(11)(b)	< one acre	$1250
		One acre or greater	$2500
Failure to maintain adequate BMPs	§14-206(11)(c)	< one acre	$2500
		one acre or greater	$5000
Changing grades prior to submitting and receiving approval of a revised grading plan	§14-206(11)(d)		$2500
Failure to obtain notice of termination	§14-206(11)(e)		$500
Failure to submit as-built plans	§14-207(1)		$500
Failure to stabilize site	§14-207(2)	< one acre	$2500
		one or more acres	$5000
Failure to comply with compliance orders	§14-211(1)(d)		$2500
C. Permanent Storm Water Facilities			
Violation	**Reference**		**Assessment**
Failure to maintain records	§14-207(5)		$600
Failure to perform required maintenance	§14-207(6)		$1000
Failure to meet or maintain design or maintenance standards	§14-207(8)		$2500

Tab 4B

Excerpts from Subdivision Regulation

C. Natural Environment

Subdivision design must give due consideration to the natural environment. Areas of natural beauty, such as fine stands of trees and prominent terrain, should be conserved by the design. Low areas subject to flooding or areas of unsuitable soil or ground water conditions should not be put to residential use.

D. Internal Details

Subdivision design must give attention to internal design details including the proper layout of streets, utilities, needed open space, and lots and adjustment of the design to the topography and soil capabilities of the land. A major aspect of internal detailing is careful attention to drainage.

Section 2 - Storm Water Drainage

Storm water drainage is a major aspect of land subdivision design; however, it should not dominate over other important design considerations. Nevertheless, considerable attention must be given to drainage design because of the potential disastrous effects on life and property resulting from defective design. Accordingly, no land subdivision shall be approved within the City of Bartlett unless a detailed drainage plan for such subdivision has been submitted to and approved by the city engineer and the city planning commission. The following principles are to be applied to all drainage designs for land subdivision within the City of Bartlett.

A. Internal Regulation of Drainage

The amount and rate of water from all sources leaving a subdivision or other developed areas shall not be significantly different after than before development unless approved by the city engineer. This will be effective for a series of storms (2, 5, 10, 25, 100) and will consist of peak flow.

B. Drainage System Design

The storm water drainage system shall consist of a major and a minor element. The major element, which will operate infrequently, shall be designed to prevent the loss of life and significant property damage from any reasonably foreseeable rainfall event. The minor element, operating frequently, shall provide for an acceptable degree of convenient access to property during and after frequent normal rainfall events. Both elements of the drainage system shall incorporate storage (retention and detention), where necessary, to provide an effective solution to the problem of controlling the amount and rate of runoff.

to be used exclusively for city owned parkland in an amount equal to five percent (5%) of the total land area of the residential development, provided, however, that no parcel less than five (5) acres shall be accepted unless such land adjoins other dedicated parkland. When a master plan for a residential subdivision is submitted, the planning, public works and parks departments shall review the master plan to determine if a park is needed in the area and make a recommendation to the planning commission on the location and size of a proposed park. The dedicated land shall be of good quality as determined by the city and shall not contain an excessive amount of low land or ditches. If the park site is approved by the planning commission, said park site shall be incorporated into the master, construction, and final plans of the development. If the developer chooses to dedicate land in lieu of a fee, the land is dedicated to the city at the time the subdivision plat is recorded. If the developer choose to pay the fee, the city may purchase the proposed park site.

3. Combination of Development Fee and Dedication

A combination of a development fee and dedication may be allowed, subject to the approval of the city and developer.

B. Open Space for Control of Storm Water Runoff

Where necessary, design of permanent and temporary ponding shall be an integral part of subdivision design. Such design shall consider opportunities to create open space and landscaped areas for ponding while at the same time considering dual uses, such as public neighborhood parks and playgrounds or private use recreational areas. Buffers of greenbelt area along aquatic resource streams are required under stormwater ordinance with dedication of buffers to the city.

C. Easements for Open Channel Drainage

Each open channel, including retention and detention ponds, natural or constructed, shall be provided an easement of width sufficient to accommodate major runoff events. Such an easement shall also provide for operation of construction and maintenance equipment, erosion control, insect vector control, landscaping, and operation of any water level flow control structures.

D. Easements for Utilities

Except where alleys are permitted for the purpose, utility easements with a minimum width of five (5) feet shall be provided along all side and rear lot lines.

C. Unauthorized Survey Marks

Survey reference marks, benchmarks, witness marks or auxiliary corners which are unsightly or damaging to curbs, gutters, sidewalks, driveways, and street pavements shall not be permitted. Any such unauthorized marks and corners shall be removed or repaired by the developer, at his expense, prior to final subdivision plat approval.

D. Survey Documentation

The developer shall provide to the city engineer, prior to final plat approval, a detailed description of all new and recovered permanent survey monuments lying within or on the boundary of the subdivision. Each description shall include:

1. A physical description of the monuments;

2. Instructions for locating the monuments with respect to a fixed prominent landmark;

3. Survey data in addition to that shown on the final plat which shall, when available, consist of adjusted plane coordinates and elevation, survey precision and accuracy, and datum to which coordinates and elevation refer.

Section 5 - Storm Water Drainage

The developer shall construct and install, at his expense within the subdivision all channels, ditches, structures, and storage basins with sufficient hydraulic capacity to control storm water runoff and emergent ground water originating within and upstream of the subdivision. Drainage improvements also include proper building site and lot grading, and erosion and insect control. This design will meet or exceed the design requirements as set forth by the city engineer. The developer shall be responsible for any and all grounds maintenance in and around any stormwater detention or retention basins. The city will maintain any permanent structure, (i.e. concrete headwalls, pipe, or box structures) within the storm water facility.

A. Drainage Channels and Structures

1. The size and quantity of drainage channels and structures shall conform to the drainage plan approved for the subdivision. The required drainage facilities include all underground pipe, inlets, catch basins, manholes,

the installation of all storm drainage improvements, including curbs and gutters, required within the major street right-of-way.

C. Insect Vector Control

All drainage channels and structures shall be constructed to eliminate breeding areas for mosquitoes and other insect pests. Other improvements such as widening, deepening, relocating, clearing, protecting or otherwise improving stream beds and other water courses within the subdivision, such water courses as may be constructed by the developer outside of the subdivision, for the control of mosquitoes and other public health nuisances shall be provided by the developer in accordance with the standards and requirements of the city engineer and the Shelby County Health Department.

D. Lot and Building Site Drainage

1. The developer shall provide to each builder within the subdivision a detailed, coordinated grading plan designed to insure proper drainage of all lots and building sites. Lots and site grading by individual builders shall conform to the coordinated grading plan furnished by the subdivision developer.

2. All lots and building sites within the subdivision shall be graded to provide positive drainage away from all principal use buildings, and all accessory use buildings covering two-hundred (200) square feet or more of the lot or site. A minimum of 2.0 percent slope shall be required to provide positive drainage of front yards to adjacent streets, or to an adequate drainage system. Deviations from this requirement may be allowed for unusual topographic conditions only with prior approval of the city engineer.

E. Non-residential Development Drainage Requirements

1. There shall be no off-site surface drainage from commercial and industrial developments. Within such subdivision developments all storm water drainage shall be collected on site and conveyed by drainage structures to the public storm sewer system in accordance with an approved drainage plan.

2. Commercial and industrial developments having more than one-hundred and fifty thousand (150,000) square feet of improved area (building and parking) shall have all drainage structures designed by the retention and slow release method. The design calculations for such structures shall be submitted to the city engineer for approval prior to construction. Pre and

2. Collector Roads Clay/Gravel Base (68', 80', 84' and 106' R.O.W.)

The clay/gravel base shall be comprised of the same materials listed above, and after compaction the clay/gravel base shall be at least eight (8) (68' and 80' ROW) and ten (10) (84-114 ROW) inches thick. Six (6) to eight (8) percent cement by weight is to be incorporated in the clay/gravel base and three (3) inches of asphalt placed on the cement treated clay/gravel base.

3. Soil Cement Base

Soil cement base shall consist of soil and portland cement uniformly mixed, moistened, compacted, finished, and cured in accordance with approved methods. After compaction, the soil cement base shall be at least six (6) inches thick on streets with rights-of-way less than sixty (60) feet, and eight (8) inches on streets with rights-of-way of sixty (60) feet or more.

E. Double Surface Seal Coat

After acceptance of the base course the roadbed shall be sealed with a double coating of asphaltic tar and pea gravel to act as a wearing surface during the construction adjoining the roadway.

F. Asphaltic Pavement

When the development surrounding the new roadway is fifty percent (50%) complete, two (2) inches of roadway surface shall be paved with asphaltic laid hot in a single course on the prepared base course. When the development is one hundred percent (100%) complete the balance of the pavement shall be installed. The asphaltic pavement shall be three (3) inches thick. The pavement surface shall conform to the approved lines, grades and cross sections.

Section 7 - Environmental Protection and Preservation

Protection and preservation of the environment particularly its natural features such as ground cover, trees, soils and watersheds are an essential element of subdivision design. The developer shall provide, at his expense, all erosion control, revegetation planting, and protection for existing vegetation.

A. Erosion Control

1. The subdivider shall submit a plan and schedule for soil erosion and sedimentation control at the time the construction plans are submitted.

Tab 4C

Excerpts from Waste Water Ordinance

(q) No person shall discharge wastewater into street inlets or through sewer manholes.

(r) No person who generates wastewater at one property shall discharge it at another property without approval from the approving authority.

(s) No person shall store or handle any material including hazardous substances defined by CERCLA, in any area draining to the city sewer system, because discharge or leakage from such storage or handling may create an explosion hazard in the sewer system or treatment plant or may constitute a hazard to human beings or animals or the receiving stream, or in any other way may have a deleterious effect upon the wastewater treatment facilities. Such storage or handling shall be subject to review by the city, and shall require a spill control plan with reasonable safeguards to prevent discharge or leakage of such materials into the sewers.

(t) When it is determined that a user is contributing to the POTW amounts of wastewater described in subsections (a) through (p) or is involved in activities described in subsections (q) through (s) so as to interfere with the operation of the POTW then the approving authority shall:

(i) Advise the user(s) of the impact of the contribution on the POTW; and

(ii) develop effluent limitation(s) for such user to correct the interference with the POTW without the need to amend these regulations.

(2) Notification of the discharge of hazardous wastes.

(a) The industrial/commercial user shall notify the City of Bartlett POTW, the EPA Regional Waste Management Division Director, and State of Tennessee hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: An identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following twelve (12) months. All notifications must take place within one hundred eighty (180) days of this rule. Industrial users who commence discharging after the effective date of this

Tab 5

Notes/Comments concerning answers in the NOI

The following notes/comments are provided to explain the rationale for some answers provided in the Notice of Intent where editing did not permit adding the comments at the question.

1. Page 2, Item B – Storm Drainage Infrastructure:

   The City of Bartlett has no catch basins. The number reported represents inlets into the system and are included because of an email from the state Storm Water Coordinator, Mr. Robert Karesh, dated 12/16/2016 (attached). Recommend future NOIs include a block for inlets since several questions in the NOI make the distinction (see page 9, question 1).

2. Page 3, item D:

   Streams were identified using the GIS mapping tool on January 17, 2017 and the draft 2016 303(d) list.

3. Page 17, Part V, Section 5, paragraph A-1:

   A no answer was supplied because the question asks if annual training is provided. Section 4.2.6 of the permit, 2nd paragraph, only requires recurring training within the permit time and does not specify that the training is annual. We do provide recurring training to 20% of the personnel assigned to those listed positions each year of the permit cycle so after five years everyone has had recurring training at least once.

4. Page 17, Part 5, Section 5, paragraph A-3:

   A no answer was provided because there was no block to indicate not applicable (N/A). The City of Bartlett has no municipal industrial activities. Additionally, we could not locate a permit requirement for TMSPs.

Don Fent

From: Robert Karesh <Robert.Karesh@tn.gov>
Sent: Friday, December 16, 2016 9:39 AM
To: 'Masin, Chris'
Cc: Don Fent; Joellyn Brazile; Steven Turaski; Terry Templeton; Crystal Warren
Subject: RE: NOI question

Correct on catch basins, and let me know if there's a better generic term we can use. I reread your question below on culverts and I think I'm confused on what you're asking. Call me and talk me through it and we can report back to the group. Thanks, robby

TN Environment & Conservation
Robert Karesh | Statewide Stormwater Coordinator
Division of Water Resources
William R. Snodgrass Tennessee Tower, 11th Floor
312 Rosa L. Parks Ave, Nashville, TN 37243
p. 615-253-5402 | robert.karesh@tn.gov
Please tell us how you think we're doing by completing this survey: TDEC Customer Satisfaction Survey

---

From: Masin, Chris [mailto:Chris.Masin@shelbycountytn.gov]
Sent: Friday, December 16, 2016 8:42 AM
To: Robert Karesh; Terry Templeton; Crystal Warren
Cc: Don Fent; Joellyn Brazile; Steven Turaski
Subject: RE: NOI question

To make sure I understand the state wants us to report "catch basins" as any input source to a piping system regardless type?

I am still unclear on what is a storm sewer and what is a culvert.

~ Chris

From: Robert Karesh [mailto:Robert.Karesh@tn.gov]
Sent: Friday, December 16, 2016 8:24 AM
To: Terry Templeton; Masin, Chris; Crystal Warren
Cc: Don Fent; Joellyn Brazile; Steven Turaski
Subject: RE: NOI question

Hi Chris. We're using "catch basin" in the NOI as generic for structural inlets to your stormwater system, not structures that treat the flow. I think the permit also uses drop structure and inlets. As far as culverts/pipes, the NOI is looking for ones owned/maintained by the MS4. Keep in mind those number can be rough estimates if more detailed isn't available. Let me know if there's a better term we should use instead of catch basin to be clearer, or if you have any other questions.

TN Environment & Conservation
Robert Karesh | Statewide Stormwater Coordinator
Division of Water Resources
William R. Snodgrass Tennessee Tower, 11th Floor
312 Rosa L. Parks Ave, Nashville, TN 37243
p. 615-253-5402 | robert.karesh@tn.gov
Please tell us how you think we're doing by completing this survey: TDEC Customer Satisfaction Survey

From: Terry Templeton
Sent: Thursday, December 15, 2016 2:19 PM
To: 'Masin, Chris'; Crystal Warren
Cc: Don Fent; Robert Karesh; Joellyn Brazile
Subject: RE: NOI question

Chris,

I think I get the gist of what you're asking, but as you have copied Robby Karesh I will wait to see if he (or his technical advisers) have any comments. Crystal & I will also give it some thought to see if we can help "boil it down."

My immediate response is that as long as the definition is consistent and makes sense it shouldn't matter a whole lot as long as the entire system is tallied one way or the other. But if there are 90+ different definitions that could be an issue, so let's see what the guru says.

Thanks for making the point.

Regarding "catch basins," Crystal and I have discussed Don's point and I think our thought is that if the inlet passes water down gradient to a pipe (and is not held and treated) it's not a catch basin. But again, there may be nuances about this that Robby might have to enlighten us about.

Thanks,

Terry

From: Masin, Chris [mailto:Chris.Masin@shelbycountytn.gov]
Sent: Thursday, December 15, 2016 1:19 PM
To: Crystal Warren; Terry Templeton
Cc: Don Fent; Robert Karesh
Subject: NOI question

As was brought up by Don at the last meeting, we do not have any "Catch Basins" in the County assuming that a catch basin is a water quality inlet as opposed to a standard inlet which passes stormwater directly through it not filtering sediment and other heavier-than-water pollutants. Do we put 0 on the NOI or is the state looking for inlets not catch basins.

Also along that line, the NOI asks for Storm Sewers in length and Culverts in number. In our GIS when a roadside ditch goes under a driveway, we for the most part classify the crossing as a "pipe" which is part of the Storm Sewer file. What we classify as a "culvert" is a pipe or box culvert that transfers drainage from one side of the street to the other side going from one ditch to another ditch. A pipe that connects pipes from one side to pipes on the other side is still a pipe. However, a culvert as the County classifies it is a County-maintained item as it goes under the street and is ours to maintain, repair or replace and a driveway pipe is actually supposed to be maintained, repaired or replaced by the land owner, therefore not really part of the public system. We do clear pipes on a regular basis to ensure that roadways do not flood and after the application of a driveway permit will install a home-owner purchased pipe, therefore are only a quasi-public pipes. It would make sense and probably some entities would classify these landowner driveway crossings

as a culverts and all publicly maintained pipes as pipes. But a driveway crossing in a public right-of-way is maintained by the County so would not be a culvert then even if in fact the entrance to the some businesses are a box culvert. In either case it would require a great deal of effort to determine if our pipes and box culverts are either a pipe (storm sewer) or a culvert (culvert) as a pipe may be a culvert and a box culvert may be a pie. Can you get clarification on what the state sees as the difference between a storm sewer and a culvert?

Thanks,

Chris Masin, P.E.
Senior Engineer

Shelby County Government
6463 Haley Road
Memphis, TN 38134
Office: (901) 222-7705
Direct: (901) 222-7746
Fax: (901) 222-7747
Cell: (901) 497-3616